U.S EPA Region III Analytical Request Form
Revision 11.09

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RAS#

DAS#

PBS#

Analytical TAT

7 days

Date: 01/04/2012		Site Activity	: Remov	al Site Evaluation					
Site Name: Dimock	Residential Groun	ndwater Site			Street Address: Ex. 6 -	Pers	sonal Privacy		
City: Dimock		S	tate: P.	PA 18847 Latitude:			Longitude:		
Program: Superfund Acct. #: 2				2012 T03N303DC6A	3TARS00	(	CERCLIS #: Unknown		
Site ID: N/A Spill ID: A			A3TA		(	Operable Unit:			
Site Specific QA Plan Submitted: No Yes Title: I				Residential Well San	npling QA/QC Work Pla	an	Date Approve	ed: ???	
EPA Project Leade	r: Rich Fetzer		Phon	e#: 215-341-6307	Cell Phone #: 215	-341	-6307	E-mail: rfetzer@epa.gov	
Request Preparer:	Gene Nance		Phon	e#: 740-867-0968	Cell Phone #: 304	-830	)-1442	E-mail:	
Site Leader: Suddl	na Graves		Phon	e#: 304-230-1230	Cell Phone #: 304	-830	)-1441	E-mail:	
Contractor: TechL	aw, Inc.		EPA CO/PO: Deni	ise T. Jones/Karen Espo:	sito		Car U		
#Samples 71	Matrix: drink	ing water		Parameter: Total M	Method: 200.7/200.8				
#Samples 71	Matrix: drink	ing water		Parameter: Total M	Metals; CLP TAL; ICP-N	AS+	·Li	Method: 200.8	
#Samples 71	Matrix: drink	ing water		Parameter: Total M	/lercury			Method: 245.1	
#Samples 71	Matrix: drink	ing water		Parameter: Dissolv	ed Metals; ICP-AES (C	a*, F	Fe, K, Mg*, Na)	Method: 200.7/200.8	
#Samples 71	Matrix: drink	ing water	_	Parameter: Dissolv	Method: 200.8				
#Samples 71	Matrix: drink	ing water		Parameter: Dissolv	Method: 245.1				
#Samples 71	Matrix: drink	ing water		Parameter: TDS	Method: 2540C				
#Samples 71	Matrix: drinki	ng water		Parameter: TSS	Method: 2540D				
#Samples 71	Matrix: drink	ing water		Parameter: Anions nitrite/nitrate	Method: 300.0				
#Samples 71	Matrix: drink	ing water		Parameter: Nitrate-	+Nitrite combined	Method: 353.2			
#Samples 71	Matrix: drink	ing water		Parameter: Total n	itrogen	Method: 353.2			
#Samples 71	Matrix: drink	ing water		Parameter: Total P	'			Method: 365.4	
#Samples 71	Matrix: drink	ing water		Parameter: hardnes	SS	Method: 2340B			
#Samples 71	Matrix: drink	ing water		Parameter: carbona	ate and bicarbonate alka	Method: SM2320B			
#Samples 71	Matrix: drink	ing water		Parameter: oil and	grease	Method: 1664A			
#Samples 71	Matrix: drink	ing water		Parameter: Alcoho	Alcohols: methanol, ethanol, propanol, 1-butanol, 2-butanol Method: 8013				

#Samples 71	Matrix: drinking	water	Parameter: Gylcol	Method: Method 8321M					
#Samples 71	Matrix drinking	water	Parameter: VOC	Parameter: VOC + acrylonitrile +TICs + 2-methoxyethanol					
#Samples 71	Matrix: drinking	water	Parameter: SVOC	Method: CLP OLC03.2					
#Samples 71	Matrix: drinking	water	Parameter: ethyler	ne glycol		Method: 8015D			
Ship Date From: Jan	10, 2012	Ship Date To: Jan	20, 2012	Org. Validation Level M3	Inorg. Validation	Level IM2			
Unvalidated Data Requested: No Yes If Yes, TAT Needed: 24hrs 48hrs 72hrs 7days Other (Specify) 5 DAY PRs									
Validated Data Package Due: 14 days 21 days 35 days 42 days Other (Specify)									
Electronic Data Delive	rables Required:	☐ No ⊠ Yes	(EDDs will be provi	ided in Region 3 EDD Format) if available					
Special Instructions: TICs required for VOC and SVOC analysis.  Samples will be screened for orthophosphorus and based on screening results samples will be analyzed for Total Phosphorus.  Request Preliminary Results (PRs) or expedited TATs for the following parameters, if feasible: bis(2-/ethylhexyl)phthalate (SVOCs); 2-methoxyethanol; ethylene glycol; triethylene glycol and diethylene glycol (glycols analysis); and Al, As, Li, Mn, Na, and Fe (total metals analysis).									
FORM ARF- 03/05									

To summarize, a 5-day TAT for preliminary results is desired/requested for the following compounds/analytes:

- Methane, ethane, ethene (RSK-175);
- bis(2-ethylhexyl) phthalate (DEHP) (part of SVOC analysis by OLC03.2);
- aluminum, arsenic, lithium, manganese, sodium, iron (part of total metals analysis);
- 2-methoxyethanol (Ethylene glycol monomethyl ether);
- ethylene glycol; and
- triethylene glycol, and 2,2'oxybisethanol (diethylene glycol).

DIM0205286

U.S EPA Region III Analytical Request Form
Revision 11.09

OASOA USE ONLY
CONTROL#
DAS#
RESSOS
RAS##
PESS#
ATRIVITED BY TODAYS

Date: 01/04/2012	Date: 01/04/2012 Site Activity: Removal Site Evaluation								
Site Name: Dimock Re	esidential Groun	dwater Site			Street Address: Ex. 6 - Personal Privacy				
City: Dimock	··· <del>-</del>		State: P	A 18847	Latitude: Longitude			e:	
Program: Superfund		-	Acct. #: 2	2012 T03N303DC6A	A3TAR	RS00	CERCLIS #: U	nknown	
Site ID: N/A Spill ID: A3TA							Operable Unit:		<u></u>
Site Specific QA Plan Submitted: No Yes Title: Residential Well S						QA/QC Work Plan		Date App	proved: ???
EPA Project Leader: Rich Fetzer Phone#: 215-341-6					0	Cell Phone #: 215-34	11-6307		E-mail: rfetzer@epa.gov
Request Preparer: Ger	ne Nance		Phon	e#: 740-867-0968	(	Cell Phone #: 304-83	0-1442		E-mail: gnance@techlawinc.com
Site Leader: Suddha (	Graves		Phon	e#: 304-230-1230	C	Cell Phone #: 304-83	0-1441		E-mail: sgraves@techlawinc.com
Contractor: TechLaw, Inc. EPA CO/PO: De					ise T. J	Jones/Karen Esposito	)		
#Samples 71	Matrix: drinki	ng water		Parameter: d13C a	and d2F	H of methane (isotech	n)		Method: ISOTECH
#Samples 71	Matrix; drinki	ng water		Parameter: d13C o	of inorg	ganic carbon (isotech	Method: ISOTECH		
#Samples 71	Matrix: drinki	ng water				es of water (O,H) (iso		Method: ISOTECH	
#Samples 71	Matrix: drinki					mpositional analysis		(isotech)	Method: ISOTECH
#Samples 71	Matrix: drinki	ng water		Parameter: Diss. ga	ases me	ethane, ethane, ethen	e (isotech)	Method: ISOTECH	
			_						
									.لہل
Ship Date From: Jan	10, 2012	Ship Date	e To: Jan	20, 2012	Org.	Validation Level M3	3	Inorg. V	/alidation Level IM2
Unvalidated Data Req	uested: 🛛 No	Yes If	Yes, TA	T Needed: 24hrs	s 🗌 48	8hrs 🔲 72hrs 🔯 7	days 🗌 Other	(Specify)	
Validated Data Packag	ge Due: 🔲 14 d	lays □21	days 🗵	35 days 🔲 42 day	ys 🗌	Other (Specify)			
Electronic Data Delive	erables Required	: 🗌 No 🛭	☑ Yes	(EDDs will be provi	ided in	Region 3 EDD Form	nat) if available		
Special Instructions:									
	•					•• •			
-									İ
EODA ADE 02/05									

FORM ARF- 03/05

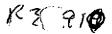
U.S EPA Region III Analytical Request Form
Revision 11.09

OASOAUSE/ONIA

Control## (CD5865 | RAS##
DAS## R88909 | NSF##
RBS## | AnalyticalFAFF 7/days

Date: 01/04/2012	Site Activ	ity: Remo	val Site Evaluation					
Site Name: Dimock Resi	dential Groundwater Site	<del></del>		Street Address: Ex. 6 - Personal Privacy				
City: Dimock		State: P	A 18847 Latitude:				Longitude:	
Program: Superfund		Acct. #:	2012 T03N303DC6A	A3TARS00		CERCLIS #: Unkno	own	
Site ID: N/A		Spill ID:	A3TA			Operable Unit:		
Site Specific QA Plan Su	ıbmitted: 🔲 No 🖾 Y	es Title:	Residential Well Sar	npling QA/QC Work Pla	n		Date Approved: ???	
EPA Project Leader: Ric	ch Fetzer	Phon	e#: 215-341-6307	Cell Phone #: 215-	-34	1-6307	E-mail: rfetzer@epa.gov	
Request Preparer: Gene	Nance	Phon	e#: 740-867-0968	Cell Phone #: 304-	83	0-1442	E-mail: gnance@techlawinc.com	
Site Leader: Suddha Gra	ives	Phon	e#: 304-230-1230	Cell Phone #: 304-	83	0-1441	E-mail: sgraves@techlawinc.com	
Contractor: TechLaw, In	1C.		EPA CO/PO: Den	enise T. Jones/Karen Esposito				
#Samples 71 N	Matrix: drinking water		Parameter: MBAS	3		Method: SM5540C		
#Samples N	Matrix: drinking water		Parameter:				Method:	
Ship Date From: Jan 10	, 2012 Ship Da	ite To: Jan	20, 2012	Org. Validation Level M3			Inorg. Validation Level IM2	
Unvalidated Data Reques	sted: 🛛 No 🔲 Yes	If Yes, TA	T Needed: 🗌 24hrs	□ 48hrs □ 72hrs 🗵	70	days 🗌 Other (Spe	cify)	
Validated Data Package I	Due: 14 days 2	l days 🗵	] 35 days 🔲 42 day	ys Other (Specify)				
Electronic Data Deliveral	bles Required: No	⊠ Yes	(EDDs will be provi	ided in Region 3 EDD Fo	rm	at) if available		
Special Instructions:							· ·	
				•				

RF- 03/05FORM A





RE: Dimock: Number of samples for Rad analysis

Nance, Gene

to:

Fred Foreman, Richard Rupert

02/08/2012 01:13 PM

Cc:

Cindy White, Cynthia Metzger, Cynthia Caporale, "Graves, Suddha", "Whitlock, Kimberly",

"MacDonald, Nikki", "Dellamia, Scout", John Kwedar

Hide Details

From: "Nance, Gene" < Gnance@TechLawInc.com > Sort List...

To: Fred Foreman/ESC/R3/USEPA/US@EPA, Richard Rupert/R3/USEPA/US

Cc: Cindy White/MTG/USEPA/US@EPA, Cynthia Metzger/ESC/R3/USEPA/US@EPA, Cynthia Caporale/ESC/R3/USEPA/US@EPA, "Graves, Suddha"

<Sgraves@TechLawInc.com>, "Whitlock, Kimberly" <kwhitlock@TechLawInc.com>,

"MacDonald, Nikki" <nmacdonald@TechLawInc.com>, "Dellamia, Scout"

<SDellamia@TechLawInc.com>, John Kwedar/ESC/R3/USEPA/US@EPA

#### 1 Attachment



CT5865-R33910\_Rev01.doc

### Fred, Rupert:

Attached is the revised analytical request I submitted last week to increase the number of samples. This estimate was based on a total of  $\sim$  60 residences to be sampled, two samples per residence,12 duplicates, and one field blank per day (estimated 20). I'm not sure if this estimate is still valid.

Gene Nance TechLaw, Inc. 740.867.0968 (office) 304.830.1442 (mobile)

From: Fred Foreman [mailto:Foreman.Fred@epamail.epa.gov]

Sent: Wednesday, February 08, 2012 12:52 PM

To: Richard Rupert

file://C:\Documents and Settings\ikwedar\Local Settings\Temp\notesDF63F8\~web2585.htm 2/8/2012

**Cc:** Cindy White; Nance, Gene; Cynthia Metzger; Cynthia Caporale **Subject:** Dimock: Number of samples for Rad analysis

Rich,

Cindy White from NAREL has expressed a concern about the final number of samples expected to be received for RAD analysis. The projected number was approximately 71 samples, with approximately 52 having been received to-date. Is the final number going to exceed the original 71 samples projected? If so, Cindy needs to know to make scheduling adjustments in her lab.

Fred

Fred Foreman, Chief Technical Services Branch Office of Analytical Services & Quality Assurance US EPA Region III Ft. Meade, Maryland 410-305-2629

U.S EPA Region III Analytical Request Form
Revision 11.09
OASQA USE ONLY 

Date: 01/10/2012 revi	2 revised 2/2/12 Site Activity: Removal Site Evaluation								
Site Name: Dimock Re	sidential Groun	dwater Site			Stre	eet Address: PA Ex. 6 - Po	ersonal Privacy		
City: Dimock		S	State: P.	A 18847	Latitude:			Longitude:	
Program: Superfund Acct. #: 2012 T03N303DC6			A3TA	ARS00	CERCLIS #: Unl	known			
Site ID: N/A	Spill ID: A3TA					Operable Unit:			
Site Specific QA Plan	Submitted:	No 🛛 Yes	Title:	Residential Well Sar	mplir	ng QA/QC Work Plan		Date Approved: Jan 19, 2012	
EPA Project Leader: I	Rich Fetzer		Phon	e#: 215-341-6307		Cell Phone #: 215-34	41-6307	E-mail: rfetzer@epa.gov	
Request Preparer: Ger	ie Nance		Phon	e#: 740-867-0968		Cell Phone #: 304-83	30-1442	E-mail: gnance@techlawinc.com	
Site Leader: Suddha C	Graves		Phon	e#: 304-230-1230		Cell Phone #: 304-83	30-1441	E-mail: sgraves@techlawinc.com	
Contractor: TechLaw,	Inc.	2004	_	EPA CO/PO: Den	ise T	. Jones/Karen Esposito	0		
#Samples 152	Matrix: drinking water Parameter: alpha				spect	roscopy Th-228, Th-23	30, Th-232	Method: HASL 300	
#Samples 152	Matrix: drinking water Parameter: alpha				spectroscopy U-234, U-235, U238			Method: HASL 300	
#Samples 152	Matrix: drinking water Parameter: gamm				a spe	c: Bi-212, Bi-214, K-4	0, Ra-226, Ra228	Method: 901.1	
#Samples 152	Matrix: drink	ing water		Parameter: gamma	a spe	c: Th-234, U235		Method: 901.1	
#Samples 152	Matrix: drink	ing water		Parameter: Gross	alpha	a/beta		Method: 900.0	
#Samples 152	Matrix: drink	ing water		Parameter: Ra-22	6			Method: 903.1	
#Samples 152	Matrix: drink	ing water		Parameter: Ra-22	8			Method: 904.0	
								``	
Ship Date From: Jan	24, 2012	Ship Date	To: Feb	24, 2012	Or	g. Validation Level M	3	Inorg. Validation Level IM2	
Unvalidated Data Req	uested: No	Yes If	Yes, TA	T Needed: 24hrs	s 🔲	48hrs 72hrs 27	days 🗌 Other (S	pecify)	
Validated Data Packag	ge Due: 14	days 🛛 21	days 🔲	35 days	ys	Other (Specify)			
Electronic Data Delive	rables Required	i: 🗌 No 🗵	Yes	(EDDs will be prov	ided	in Region 3 EDD Forr	nat) if available		
Special Instructions: N	lumber of sar	nples reflec	ts the re	evised total numb	er fo	or the project.			
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DIM0205286

# U.S EPA Region III Analytical Request Form Revision 11.09

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	OASOAUSE ONLY HAN SEE THE TAXABLE PROPERTY OF THE PROPERTY OF
	ČĪI5865 RĀS#
	R86910 NSE##4
PES# PAR	Analytical TATE 7/days

Date: 01/04/2012	012 Site Activity: Removal Site Evaluation								
Site Name: Dimock Re	esidential Groun	dwater Site			Street Address: Ex. 6 - Personal Privacy				
City: Dimock		S	tate: P	A 18847	Latitude:			Longitude:	
Program: Superfund		A	cct. #: 2	2012 T03N303DC6A	13T/	ARS00	CERCLIS #: Unk	nown	
Site ID: N/A Spill ID: A3TA			АЗТА			Operable Unit:			
Site Specific QA Plan Submitted: No Yes Title: Residential Well San						ng QA/QC Work Plan	<u> </u>	Date Approved: ???	
EPA Project Leader: 1	Rich Fetzer		Phon	e#: 215-341-6307		Cell Phone #: 215-34	11-6307	E-mail: rfetzer@epa.gov	
Request Preparer: Ger	ne Nance		Phon	e#: 740-867-0968		Cell Phone #: 304-83	30-1442	E-mail: gnance@techlawinc.com	
Site Leader: Suddha (	Graves		Phon	e#: 304-230-1230		Cell Phone #: 304-83	30-1441	E-mail: sgraves@techlawinc.com	
Contractor: TechLaw,	Inc.			EPA CO/PO: Den	ise T	. Jones/Karen Esposito	)		
#Samples 71	oles 71 Matrix: drinking water Parameter: alpha s					roscopy Th-228, Th-23	30, Th-232	Method: HASL 300	
#Samples 71	Matrix: drinking water Parameter: alpha					roscopy U-234, U-235	, U236, U238	Method: HASL 300	
#Samples 71	Matrix: drinki	ng water		_	na spec: Bi-212, Bi-214, K-40, Ra-226, Ra228			Method: 901.1	
#Samples 71	Matrix: drinki	ng water		Parameter: gamma	a spe	c: Th-232, Th-234, U-2	234, U235, U238	Method: 901.1	
#Samples 71	Matrix: drinki	ng water		Parameter: Gross:	alpha	a/beta		Method: 900.0	
#Samples 71	Matrix: drinki	ng water		Parameter: Ra-226	6			Method: 903.1	
#Samples 71	Matrix: drinki	ng water	·	Parameter: Ra-228	28			Method: 904.0	
								·	
Ship Date From: Jan	10, 2012	Ship Date	To: Jan	20, 2012	Orį	g. Validation Level M	3	Inorg. Validation Level IM2	
Unvalidated Data Requ	uested: 🛛 No	Yes If	Yes, TA	T Needed: 🔲 24hrs		48hrs 🗌 72hrs 🛭 7	days 🗌 Other (Sp	pecify)	
Validated Data Packag	ge Due: 🔲 14 d	lays □21 d	ays 🗵	] 35 days 🔲 42 day	/s [	Other (Specify)			
Electronic Data Delive	rables Required	: 🗌 No 🏻	Yes	(EDDs will be provi	ided	in Region 3 EDD Forn	nat) if available	_	
Special Instructions:	•								
		•						,	
						·			



To:

Cindy White/MTG/USEPA/US,

Cc:

clients.r3@epa.gov, "Nance, Gene" < Gnance@TechLawInc.com>,

Bcc:

Subject: Fw: Clarification of Analysis Gamma Spectroscopy by NAREL R33910 John Kwedar/ESC/R3/USEPA/US - Monday 01/23/2012 07:51 AM

#### Cindy:

Please review the attached and advise if the six 1-liter poly containers referred to below will be adequate for the requested analyses.

Thank you,

John Kwedar Technical Services Branch, OASQA EPA Region III 701 Mapes Road Ft. Meade, MD 20755-5350 410-305-3021(voice) 410-305-3095(fax) kwedar.john@epa.gov

----- Forwarded by John Kwedar/ESC/R3/USEPA/US on 01/23/2012 07:50 AM -----

From:

"Nance, Gene" < Gnance@TechLawinc.com>

To:

Fred Foreman/ESC/R3/USEPA/US@EPA, Kevin Martin/ESC/R3/USEPA/US@EPA, Stevie

Wilding/ESC/R3/USEPA/US, John Kwedar/ESC/R3/USEPA/US@EPA

Cc:

"Carter, Joe" <Jcarter@TechLawInc.com>, "Graves, Suddha" <Sgraves@TechLawInc.com>,

"Burris, Brian" <Bburris@TechLawInc.com>, R3 Clients@EPA

Date:

01/20/2012 03:47 PM

Subject:

Clarification of Analysis Gamma Spectroscopy by NAREL R33910

#### Kevin, Stevie, Fred, et al:

When we received the DAS assignment for the radiochemistry (attached), it had broken out the gamma spectroscopy analysis into two line items as shown below.

Parameter: gamma spec: Bi-212, Bi-214, K-40, Ra-226, Ra228

Parameter: gamma spec: Th-232, Th-234, U-234, U235, U238

We are assuming that this will not require any additional sample containers. Can someone verify this with NAREL? We are planning to collect and submit six 1-liter poly containers per sample for all of the NAREL analyses.

Thanks.

Gene Nance TechLaw, Inc. 740.867.0968 (office) 304.830.1442 (mobile)





Clarification of Analysis Gamma Spectroscopy by NAREL R33910 Nance, Gene

to:

Fred Foreman, Kevin Martin, Stevie Wilding, John Kwedar 01/20/2012 03:47 PM

Cc:

"Carter, Joe", "Graves, Suddha", "Burris, Brian", R3 Clients Hide Details

From: "Nance, Gene" < Gnance@TechLawInc.com>

To: Fred Foreman/ESC/R3/USEPA/US@EPA, Kevin Martin/ESC/R3/USEPA/US@EPA, Stevie Wilding/ESC/R3/USEPA/US, John Kwedar/ESC/R3/USEPA/US@EPA

Cc: "Carter, Joe" < Jcarter@TechLawInc.com>, "Graves, Suddha" < Sgraves@TechLawInc.com>, "Burris, Brian" < Bburris@TechLawInc.com>, R3 Clients@EPA

#### I Attachment



CT5865-R33910.doc

Kevin, Stevie, Fred, et al:

When we received the DAS assignment for the radiochemistry (attached), it had broken out the gamma spectroscopy analysis into two line items as shown below.

Parameter: gamma spec: Bi-212, Bi-214, K-40, Ra-226, Ra228
Parameter: gamma spec: Th-232, Th-234, U-234, U235, U238

We are assuming that this will not require any additional sample containers. Can someone verify this with NAREL? We are planning to collect and submit six 1-liter poly containers per sample for all of the NAREL analyses.

Thanks.

Gene Nance TechLaw, Inc. 740.867.0968 (office) 304.830.1442 (mobile)

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## U.S EPA Region III Analytical Request Form

Revision 11.09									
OASOA USE ONLY									
Control# 1848# RAS#									
DAS## R83911									
PRESIDENT Analytical DATE.	7 drays/5 DANY IPRO								

Date: 01/04/2012	Si	ite Activity:	Remov	al Site Evaluation				•	
Site Name: Dimock Re	esidential Groundw	vater Site			Street Address: Ex. 6 - Personal Privacy				
City: Dimock		St	ate: P.	A 18847	Latitude:		Longitude:		
Program: Superfund		Ac	cct. #: 2	012 T03N303DC6A	3TARS00	CERCLIS #: Unkn	iown		
Site ID: N/A		Sp	oill ID: A	A3TA		Operable Unit:			
Site Specific QA Plan	Submitted: N	No 🛛 Yes	Title:	Residential Well Sar	npling QA/QC Work Plan		Date Approv	ved: ???	
EPA Project Leader: Rich Fetzer Phone#: 215-341-630					Cell Phone #: 215-34	41-6307		E-mail: rfetzer@epa.gov	
Request Preparer: Ger	ne Nance		Phon	e#: 740-867-0968	Cell Phone #: 304-83	30-1442		E-mail: gnance@techlawinc.com	
Site Leader: Suddha (	Graves		Phon	e#: 304-230-1230	Cell Phone #: 304-83	30-1441		E-mail: sgraves@techlawinc.com	
Contractor: TechLaw, Inc. EPA CO/PO: Den					ise T. Jones/Karen Esposito	0			
#Samples 71	Matrix: drinking water			Parameter: dissolv	ed gases: methane,ethane,	ethene, propane, but	ane	Method: RSK175/	
#Samples 71	Matrix: drinking	water		Parameter: DRO		•		Method: 8015D	
#Samples 71	Matrix: drinking	water		Parameter: GRO			Method: 8015D		
				·					
							ļ .		
Ship Date From: Jan	10, 2012	Ship Date 7			Org. Validation Level M	lation Level IM2			
Unvalidated Data Requ	uested: 🛛 No 🔲	Yes If Y	es, TA	Γ Needed:   24hrs	☐ 48hrs ☐ 72hrs 🖂 7	days 🗌 Other (Spe	cify) 5 DAY	PRs	
Validated Data Packag	e Due: 🔲 14 day	/s □21 da	ıys 🗵	35 days 🔲 42 day	s Other (Specify)				
Electronic Data Delive	rables Required:	□No ⊠	Yes	(EDDs will be provi	ded in Region 3 EDD Form	nat) if available			
Special Instructions:  FORM ARF- 03/05									
FURIN ARE US/US									

To summarize, a 5-day TAT for preliminary results is desired/requested for the following compounds/analytes:

- Methane, ethane, ethene (RSK-175);
- bis(2-ethylhexyl) phthalate (DEHP) (part of SVOC analysis by OLC03.2);
- aluminum, arsenic, lithium, manganese, sodium, iron (part of total metals analysis);
- 2-methoxyethanol (Ethylene glycol monomethyl ether);
- ethylene glycol; and
- triethylene glycol, and 2,2'oxybisethanol (diethylene glycol).

DIM0205286

DIM0205303

U.S EPA Region III Analytical Request Form

Revision 11.09

OASOAUS FONDY

Control# CS865 RAS#

DAS# RS8912 NSE#

Analytical mair 7 days

Date: 01/04/2012	Site Activity: Removal Site Evaluation								
Site Name: Dimock Re	sidential Groundwater S	te		Street Address: Ex. 6 - Personal Privacy					
City: Dimock		State:	: PA 18847	Latitude: Longitu			Longitude	e:	
Program: Superfund		Acct.	.#: 2012 T03N303DC6.	A3TARS00	A3TARS00 CERCLIS #: Unknown				
Site ID: N/A		Spill	ID: A3TA			Operable Unit:			
Site Specific QA Plan S	Submitted: 🔲 No 🛛	Yes Ti	itle: Residential Well Sa	mpling QA/Q0	C Work Plan		Date App	proved: ???	
EPA Project Leader: R	Cell Pho	one #: 215-3	41-6307		E-mail: rfetzer@epa.gov				
Request Preparer: Gene Nance Phone#: 740-867-096			Phone#: 740-867-0968	Cell Pho	one #: 304-8	30-1442		E-mail: gnance@techlawinc.com	
Site Leader: Suddha G	Site Leader: Suddha Graves Phone#: 304-230-1230				one #: 304-8	30-1441		E-mail: sgraves@techlawinc.com	
Contractor: TechLaw, Inc. EPA CO/PO: Den				ise T. Jones/Karen Esposito					
#Samples 71	Matrix: drinking water		Parameter: Bacter	ria (total colifo	rm, HPC)			Method: 9222D	
#Samples 71	Matrix: drinking water		Parameter: Turbio	lity, Nephelom	etric (Field r		Method: 180.1		
					•. •		-		
Ship Date From: Jan 1	10, 2012 Ship I	Date To:	: Jan 20, 2012	Org. Validation Level M3 Inorg.			Inorg. V	alidation Level IM2	
Unvalidated Data Requ	ested: No Yes	If Yes,	, TAT Needed: 24hr	s 48hrs [	] 72hrs ⊠ 7	days 🗌 Other (Sp	ecify)		
Validated Data Package	e Due: 14 days	21 days		ys 🗌 Other	(Specify)				
Electronic Data Deliver	rables Required: 🔲 No	⊠ Yes	es (EDDs will be prov	ided in Region	3 EDD Form	nat) if available			
Special Instructions:		•	-					1	
FORM ARE 03/05									

DIM0205304 DIM0205286

# U.S EPA Region III Analytical Request Form Revision 11.09

	e in en	SQA USE ONLY	
Control#A	CT5878	RAS######	
		MORE INSERTING	
PESH SACKET	The state of the s	Analytical TATE	TIVIDAYS PROPERTY OF THE PROPE

Date: 01/20/2012	Site Act	Site Activity: Removal Site Evaluation							
Site Name: Dimock Re	esidential Groundwater Si	te			Street Address: Ex. 6 - Personal Privacy				
City: Dimock		State	e; PA	A 18847	Latitude:			Longitude:	
Program: Superfund		Acci	t. #: 2	012 T03N303DC6A	A3TA	RS00	CERCLIS	: Unk	nown
Site ID: N/A	Site ID: N/A Spill ID: A3TA			A3TA			Operable U	nit:	
Site Specific QA Plan Submitted: No Yes Title: Residential Well Sa					mplin	g QA/QC Work Plan			Date Approved: January 8, 2012
EPA Project Leader:	Rich Fetzer		Phone	e#: 215-341-6307		Cell Phone #: 215-34	41-6307		E-mail: fetzer.richard@epa.gov
Request Preparer: Ger	ne Nance		Phone	#: <b>740-8</b> 67 <b>-0</b> 968		Cell Phone #: 304-83	30-1442		E-mail: gnance@techlawinc.com
Site Leader: Suddha Graves Phone#:			#: 304-230-1230		Cell Phone #: 304-83	30-1441		E-mail: sgraves@techlawinc.com	
Contractor: TechLaw, Inc. EPA CO/PO: D					ise T.	. Jones/Karen Esposito	)		
#Samples: up to 130	Samples: up to 130 Matrix: drinking water Par				Parameter: Coliform - Total and Fecal			Method: SM 9222B	
#Samples: up to 130	Matrix: drinking water			Parameter: Heterotrophic Plate Count (Bacteria)				Method: SM 9215B	
# Samples: up to 130	Matrix: drinking water			Parameter: Ethylene glycol			Method: SW846 8015M		
#Samples 20	Matrix: drinking water			Parameter: compo	ompositional analysis of headspace gas - GC MS			Method: Isotech proprietary method	
#Samples 20	Matrix: drinking water			Parameter: d13 C a	<sup>13</sup> C and d <sup>2</sup> H of methane			Method: Isotech proprietary method	
#Samples 20	Matrix: drinking water			Parameter: Stable	e isotopes of water (O, H)				Method: Isotech proprietary method
Ship Date From: Jan	30, 2012 Ship I	ate To	: Marc	ch 2, 2012	Org	. Validation Level M	3		Inorg. Validation Level
Unvalidated Data Req	uested: No Yes	If Yes	s, TAT	Needed: 24hrs	; 🗆 4	48hrs 🔲 72hrs 🔲 7	days 🗌 Otl	er (S	pecify) not applicable
Validated Data Packag	ge Due: 🛛 14 days 🗌	21 days	s 🛛	35 days 42 day	ys [	Other (Specify) 14-	day TAT-ba	cteri	a; 35-day ethylene glycol and headspace/isotopes
Electronic Data Delive	erables Required: 🔲 No	⊠ Y	es (	(EDDs will be provi	ided i	n Region 3 EDD Forn	nat) if availa	ble	·
Special Instructions:  Request for data validation of Tier IV data.  - Compositional headspace gas analysis, d <sup>13</sup> C and d <sup>2</sup> H of methane, and Stable isotopes of water (O, H) analysis will be performed by Isotech Laboratories, Inc, located in Champaign, IL using proprietary methods. Isotech QAPP is attached.  - Bacteria: Coliform (Total and fecal) and heterotrophic plate count (HPC).  - Ethlene glycol analysis by Pace Analytical, Indianapolis Laboratory.									

FORM ARF- 03/05

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# UNITED CATES ENVIRONMENTAL PROTECTION AGENCY REGION III



Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 27, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS:# R33917; SDG: #5057872) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02115 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw) Suddha Graves (Techlaw)

### OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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## ESA ATA VALIDATION EVALUATION ChuCKLIST Contract # EP-W-06-016

02115 Task Order #: \_ 0042\_ TDF #: Revision #: \_\_\_0 Project #: \_R33917\_\_\_ Site Name: Dimock Project #: 5057872 Analysis Type: Organic Reviewer: \_\_\_ Ex. 4 - CBI CLP Laboratory Conv. 17 CE EPA CLP TPO: Howard Pham Region: 5 EPA RPM: Number of hours spent on review: Number of samples: Validation Type: 2/27/12 Date submitted to EPA: \_\_\_\_\_ Flat File Required **CRITERIA** YES <u>NO</u> **COMMENTS** Format according to Region III protocol Clarity of report Qualifiers applied correctly Consistency between narrative and data summary form(s) Error-free transcription **EFFICIENCY OF** YES <u>NO</u> **COMMENTS CONTRACTOR** Approval recommended for current submission Time spent on review is reasonable Technical Evaluation EPA Oversight **ESD OVERSIGHT ESAT** DATES

Received at EPA Oversight assigned Oversight received Oversight completed Feedback given Mailed to RPM

DCN: DVEPACHK.WPD

Rev.: 5/11//06

## ESAT-ATA VALIDATION EVALUATION CHECKLIST Contract # EP-W-06-016

02085/

Task Order #: _ 0042 Site Name: _Dimock Analysis Type:Organic Reviewer: Ex. 4 - C CLP Laboratory Code: _PA	72.00	15
EPA CLP TPO: _Howard P EPA RPM: ce: EPA  Date submitted to EPA:		Region:5  Number of hours spent on review: / Number of samples:8 Validation Type:M3 Flat File Required Yes _X_ No
CRITERIA	YES NO	O COMMENTS
Format according to Region III protocol	<u>/</u> _	
Clarity of report		
Qualifiers applied correctly	<u></u>	· : -
Consistency between narrative and data summary form(s)	<u> </u>	
Error-free transcription		<u> </u>
EFFICIENCY OF CONTRACTOR	<u>YES</u> NO	<u>COMMENTS</u>
Approval recommended for current submission	<u> </u>	
Time spent on review is reasonable		
Technical Evaluation	4.0	EPA Oversight
ESD OVERSIGHT		
DATES	EPA	Oversight (1-7) ESAT
Received at EPA Oversight assigned Oversight received Oversight completed Feedback given Mailed to RPM		2/27/2012 2/27/2012 Dested to 5: dri
		1

DCN: DVEPACHK.WPD

Rev.: 5/11//06



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Lockheed Martin IS&GS - Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

DATE:

February 27, 2012

SUBJECT:

Organic Data Validation (Level M3)

Site: Dimock

CASE: R33917, PROJECT: 5057872

FROM:

Ex. 4 - CBI

Senior Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

TO:

Colleen Walling

**ESAT Region 3 Project Officer** 

#### **OVERVIEW**

Case R33917, Project 5057872, from the Dimock site consisted of eight (8) aqueous samples including one (1) field blank and one (1) rinsate blank analyzed for ethylene glycol. All samples were submitted to Pace Analytical Services Incorporated (PACE). The samples were analyzed according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

### **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage\_4\_Validation\_Manual). No problems were detected during validation of these data.

#### **NOTES**

- No positive results were reported in the field samples in this data set. Therefore, no confirmation analyses were required.
- Samples EB01 and FB06 were assumed to be the rinsate and field blanks, respectively. The laboratory used sample EB01 for the Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses.
- Reported recoveries and Relative Percent Differences (RPDs) in the Laboratory Control Sample (LCS) analysis and MS/MSD analyses of sample EB01 were within control limits.

• The laboratory stated in the case narrative that method 8015B was used in the analyses of these samples. However, method 8015C is referenced as the method used for the analyses in the raw data. No action was taken by the reviewer based on this finding.

## **ATTACHMENTS**

- l) Appendix A Glossary of Data Qualifiers
- 2) Appendix B Data Summary Forms
- 3) Appendix C Chain of Custody (COC) Records
- 4) Appendix D Laboratory Case Narrative

DCN: R33917\_Project 5057872DimockM3

# Appendix A

Glossary of Data Qualifiers

## GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

#### CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

- U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.
- NO CODE = Confirmed identification.
  - B = Not detected substantially above the level reported in laboratory or field blanks.
  - R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
  - N = Tentative identification. Consider present.
    Special methods may be needed to confirm its presence or absence in future sampling efforts.

#### CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

#### OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

DIM0205321

# Appendix B

Data Summary Forms

### DATA SUMMARY FORM: Volatiles

DATA SUMMARY FORM: Volatil

Case #; R33917

Project: 5057872

Site:

DIMOCK

Lab.:

PACE

Number of Water Samples: 8

Page 1 of 1

Sample Number :	mber: EB01		FB06		HW13		HW18		HW18-P	
Sample Station Location: EB01		FB06		HW13		HW18		HW18		
Laboratory ID:	5057872001	5057872001		5057872002		5057872003		5057872004		
Field QC: Rinsate Blank		ık	Field Blank							
Matrix : Water		Water		Water		Water		Water		
Units:	Inits: mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled:	Date Sampled : 1/28/2012		1/30/2012		1/30/2012		1/30/2012		1/30/2012	
Time Sampled:	Time Sampled: 11:26		09:30		11:23		11:27		11:52	
Dilution Factor:	Dilution Factor: 1.0		1.0		1.0		1.0		1.0	
Volatile Compound R	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol 10		7.1						2		

Sample Number :		HW20		HW20-P		HW25-P					
Sample Station Location	n:	HW20		HW20		HW25					
Laboratory ID :		5057872006		5057872007		5057872008					•
Field QC:						*	•				;
Matrix :		Water		Water		Water		 		]	
Units:		mg/L		mg/L		mg/L		Ī		i	
Date Sampled:		1/30/2012		1/30/2012	į	1/30/2012					
Time Sampled:		16:12		16:29		15:32		1			
Dilution Factor:		1.0		1.0		1.0				ł	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10								1 1		35.

DIM0205324

DIM0205325

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III



Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 27, 2012

Colleen Walling

SUBJECT:

Region III Data QA Review

FROM:

Λα. -

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS:# R33917; SDG: #5058051) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02116 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw)

Suddha Graves (Techlaw)

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# ESAT DATA VALIDATION EVALUATION CHECKLIST Contract # EP-W-06-016

02085/

Task Order #: 0042 Site Name: Dimock Analysis Tape: Ornapic Reviewer: Ex. 4 - CBI			Revision #: 0SE	OG #: _5058051	<u> </u>
CLP Laboratory Code: PA	ACE				
EPA CLP TPO: Howard I EPA RPM: cc:			Region: 5  Number of hours specified Number of samples: Validation Type:		20
Date submitted to EPA: _	2/27/12		Flat File Required	Ÿ	<u>M3</u> /es No
<u>CRIȚERIA</u>	YES	<u>NO</u>	<u>COMMENTS</u>		
Format according to Region III protocol				<del></del>	
Clarity of report	~				
Qualifiers applied correctly	<u>~</u>	 : .			
Consistency between narrative and data summary form(s)	<u> </u>				<del></del> -
Error-free transcription					•
EFFICIENCY OF CONTRACTOR	YES.	<u>NO</u>	COMMENTS		
Approval recommended for current submission	<u></u>		· 	<del> </del>	
Time spent on review is reasonable					
Technical Evaluation	<u>4.0</u>	<del></del>	Janual C EPA C	L' Burn Oversight	- 2/27/2012
ESD OVERSIGHT		(		0	
DATES	EPA		Oversight	2.75	ESAT
Received at EPA Oversight assigned Oversight received Oversight completed Feedback given Mailed to RPM	<u>21001746</u> 2100174E	- Char	2/27/2012 2/27/2012	: Pox	12 2/27/12

DCN: DVEPACHK.WPD

Rev.: 5/11//06



Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

Date:

February 27, 2012

Subject:

Organic Data Validation (M3 Level)

Case: R33917 Project: 5058051 Site: Dimock

From:

**Ex. 4 - CBI** 

Organic Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

To:

Colleen Walling

**ESAT Region 3 Project Officer** 

#### **OVERVIEW**

Third party Case R33917, Project 5058051, consisted of twenty (20) aqueous samples including three (3) field blanks analyzed for ethylene glycol. Samples were analyzed by Pace Analytical (PACE) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

#### **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage 4 Validation Manual). No problems were detected during the validation of this data set.

#### NOTES

- The laboratory stated in the case narrative that Method 8015B was used in the analyses of these samples. However, method 8015C is referenced as the method used for the analyses in the raw data. No action was taken by the reviewer based on this finding
- Reported recoveries and Relative Percent Differences (RPDs) in Laboratory Control Sample (LCS) analysis and MS/MSD analyses of samples HW34a-P and HW35 were within control limits.
- No positive results were reported by the laboratory for the samples in this sample set.

## **ATTACHMENTS**

Appendix A - Glossary of Data Qualifier Codes

Appendix B – Data Summary Form(s)

Appendix C - Chain of Custody Records

Appendix D - Laboratory Case Narrative

DCN: R33917\_5058051

Appendix A Glossary of Data Qualifier Codes

#### GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

#### CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

- B = Not detected substantially above the level reported in laboratory or field blanks.
- R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
- N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

#### CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

#### OTHER CODES

- NJ = Qualitative identification questionable due to poor resolution.

  Presumptively present at approximate quantity.
- Q = No analytical result.

Appendix B Data Summary Forms Case #: R33917

Project: 5058051

Site:

DIMOCK

Lab.:

PACE

Number of Water Samples: 20

Sample Number :		FB07		FB08		FB09		HW26		HW26-P	
Station Location:		FB07		FB08		FB09		HW26		HW26	
Laboratory ID :		5058051001		5058051002		5058051003		5058051004		5058051005	
Field QC:		Field Blank		Field Blank		Field Blank					
Matrix:		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		01/31/2012		02/01/2012		02/02/2012		01/31/2012		01/31/2012	
Time Sampled :		14:15		14:45		10:15		10:26		11:37	
Dilution Factor:		1.0		1,0		1.0		1.0	•	1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	105	upelara.					2205		EU.		
Sample Number:		HW29		HW29z		HW32		HW32-P		HW33	
Station Location:		HW29		HW29		HW32		HW32		HW33	
Laboratory ID:		5058051006		5058051007		5058051008		5058051009		5058051010	
				Į							
Matrix:		Water		Water		Water	ı	Water		Water	
Units:	•	mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled:		01/31/2012		01/31/2012		02/01/2012		02/01/2012		02/01/2012	
Time Sampled :		18:18		18:18		10:45		10:50		10:49	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										
2 1 37 1		THE PARTY OF THE P	_	THUMAL D		HW34a		TTTV04 D		T 77 70 6	
Sample Number :		HW33a-P		HW33b-P		HW 148		HW34a-P		HW35	
1 m		TITTIOO						T137727 4			ļ
Station Location:	•	HW33a		HW33b		HW34a		HW34a		HW35	
Station Location: Laboratory ID:		HW33a 5058051011	-					HW34a 5058051014			
Laboratory ID:		5058051011		HW33b 5058051012		HW34a 5058051013		5058051014		HW35 5058051015	
Laboratory ID :  Matrix :		5058051011 Water		HW33b 5058051012 Water		HW34a 5058051013 Water		5058051014 Water		HW35 5058051015 Water	
Laboratory ID :  Matrix :  Units :		5058051011 Water mg/L		HW33b 5058051012 Water mg/L		HW34a 5058051013 Water mg/L		5058051014 Water mg/L		HW35 5058051015 Water mg/L	
Laboratory ID :  Matrix : Units : Date Sampled :		5058051011 Water mg/L 02/01/2012		HW33b 5058051012 Water mg/L 02/01/2012		HW34a 5058051013 Water mg/L 02/01/2012		5058051014 Water mg/L 02/01/2012		HW35 5058051015 Water mg/L 01/31/2012	
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled:		5058051011 Water mg/L 02/01/2012 10:42		HW33b 5058051012 Water mg/L 02/01/2012 11:42		HW34a 5058051013 Water mg/L 02/01/2012 15:47		5058051014  Water mg/L 02/01/2012 15:55		HW35 5058051015 Water mg/L 01/31/2012 11:49	
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:	RL	5058051011 Water mg/L 02/01/2012 10:42 1.0	Flag	HW33b 5058051012 Water mg/L 02/01/2012 11:42 1.0	Flag	HW34a 5058051013 Water mg/L 02/01/2012 15:47 1.0	Flag	5058051014  Water mg/L 02/01/2012 15:55 1.0	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0	Flap
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound	RL	5058051011 Water mg/L 02/01/2012 10:42	Flag	HW33b 5058051012 Water mg/L 02/01/2012 11:42	Flag	HW34a 5058051013 Water mg/L 02/01/2012 15:47	Flag	5058051014  Water mg/L 02/01/2012 15:55	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:		5058051011 Water mg/L 02/01/2012 10:42 1.0	Flag	HW33b 5058051012 Water mg/L 02/01/2012 11:42 1.0	Flag	HW34a 5058051013 Water mg/L 02/01/2012 15:47 1.0	Flag	5058051014  Water mg/L 02/01/2012 15:55 1.0	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound		5058051011 Water mg/L 02/01/2012 10:42 1.0	Flag	HW33b 5058051012 Water mg/L 02/01/2012 11:42 1.0	Flag	HW34a 5058051013 Water mg/L 02/01/2012 15:47 1.0	Flag	5058051014  Water mg/L 02/01/2012 15:55 1.0	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol		5058051011  Water mg/L 02/01/2012 10:42 1.0 Result	Flag	HW33b 5058051012  Water mg/L 02/01/2012 11:42 1.0  Result	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0  Result	Flag	Water mg/L 02/01/2012 15:55 1.0 Result	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0 Result	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol		5058051011  Water mg/L 02/01/2012 10:42 1.0 Result  HW42	Flag	HW33b 5058051012 Water mg/L 02/01/2012 11:42 1.0 Result	Flag	HW34a 5058051013 Water mg/L 02/01/2012 15:47 1.0 Result	Flag	Water mg/L 02/01/2012 15:55 1.0 Result HW46-P	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0 Result	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol Sample Number: Station Location:		5058051011  Water mg/L 02/01/2012 10:42 1.0  Result  HW42 HW42	Flag	HW33b 5058051012 Water mg/L 02/01/2012 11:42 1.0 Result HW42z HW42z	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0  Result  HW46 HW46	Flag	5058051014  Water mg/L 02/01/2012 15:55 1.0  Result  HW46-P HW46	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0 Result HW52 HW52	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol Sample Number: Station Location:		5058051011  Water mg/L 02/01/2012 10:42 1.0  Result  HW42 HW42	Flag	HW33b 5058051012 Water mg/L 02/01/2012 11:42 1.0 Result HW42z HW42z	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0  Result  HW46 HW46	Flag	5058051014  Water mg/L 02/01/2012 15:55 1.0  Result  HW46-P HW46	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0 Result HW52 HW52	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol Sample Number: Station Location: Laboratory ID:		Water mg/L 02/01/2012 10:42 1.0 Result  HW42 HW42 5058051016	Flag	HW33b 5058051012  Water mg/L 02/01/2012 11:42 1.0 Result  HW42z HW42 5058051017	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0 Result  HW46 HW46 5058051018	Flag	Water mg/L 02/01/2012 15:55 1.0 Result  HW46-P HW46 5058051019	Flag	HW35 5058051015 Water mg/L 01/31/2012 11:49 1.0 Result HW52 HW52 5058051020	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol Sample Number: Station Location: Laboratory ID:  Matrix:		Water mg/L 02/01/2012 10:42 1.0 Result HW42 HW42 5058051016 Water	Flag	HW33b 5058051012  Water mg/L 02/01/2012 11:42 1.0 Result  HW42z HW42 5058051017  Water	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0 Result HW46 HW46 5058051018  Water	Flag	5058051014  Water mg/L 02/01/2012 15:55 1.0  Result  HW46-P HW46 5058051019  Water	Flag	HW35 5058051015  Water mg/L 01/31/2012 11:49 1.0 Result HW52 HW52 5058051020  Water	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol  Sample Number: Station Location: Laboratory ID:  Matrix: Units: Date Sampled:		Water mg/L 02/01/2012 10:42 1.0 Result HW42 HW42 S058051016 Water mg/L	Flag 强和经	HW33b 5058051012  Water mg/L 02/01/2012 11:42 1.0  Result  HW42z HW42z HW42 5058051017  Water mg/L	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0  Result  HW46 HW46 5058051018  Water mg/L	Flag	Water mg/L 02/01/2012 15:55 1.0 Result HW46-P HW46 5058051019 Water mg/L	Flag	HW35 5058051015  Water mg/L 01/31/2012 11:49 1.0 Result  HW52 HW52 HW52 5058051020  Water mg/L	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol  Sample Number: Station Location: Laboratory ID:  Matrix: Units:		Water mg/L 02/01/2012 10:42 1.0 Result  HW42 HW42 5058051016  Water mg/L 02/02/2012	Flag	HW33b 5058051012  Water mg/L 02/01/2012 11:42 1.0 Result HW42z HW42 5058051017  Water mg/L 02/02/2012	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0 Result HW46 HW46 5058051018  Water mg/L 02/02/2012	Flag	Water mg/L 02/01/2012 15:55 1.0 Result HW46-P HW46 5058051019 Water mg/L 02/02/2012	Flag	HW35 5058051015  Water mg/L 01/31/2012 11:49 1.0 Result  HW52 HW52 5058051020  Water mg/L 01/31/2012	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol  Sample Number: Station Location: Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled:		Water mg/L 02/01/2012 10:42 1.0 Result  HW42 HW42 5058051016  Water mg/L 02/02/2012 10:28 1.0	Flag	HW33b 5058051012  Water mg/L 02/01/2012 11:42 1.0 Result  HW42z HW42 5058051017  Water mg/L 02/02/2012 10:29 1.0	Flag	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0 Result HW46 5058051018  Water mg/L 02/02/2012 11:39 1.0	Flag	Water mg/L 02/01/2012 15:55 1.0 Result  HW46-P HW46 5058051019  Water mg/L 02/02/2012 11:24	Flag	HW35 5058051015  Water mg/L 01/31/2012 11:49 1.0 Result  HW52 HW52 5058051020  Water mg/L 01/31/2012 15:22	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Dilution Factor: Volatile Compound Ethylene glycol  Sample Number: Station Location: Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound	RL	Water mg/L 02/01/2012 10:42 1.0 Result  HW42 HW42 5058051016  Water mg/L 02/02/2012 10:28 1.0		HW33b 5058051012  Water mg/L 02/01/2012 11:42 1.0 Result  HW42z HW42 5058051017  Water mg/L 02/02/2012 10:29 1.0	The state of the s	HW34a 5058051013  Water mg/L 02/01/2012 15:47 1.0 Result HW46 5058051018  Water mg/L 02/02/2012 11:39 1.0		Water mg/L 02/01/2012 15:55 1.0 Result  HW46-P HW46 5058051019  Water mg/L 02/02/2012 11:24 1.0		HW35 5058051015  Water mg/L 01/31/2012 11:49 1.0 Result HW52 HW52 5058051020  Water mg/L 01/31/2012 15:22 1.0	100 M

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

# UNITED CATES ENVIRONMENTAL PROTECTION AGENCY REGION III



#### Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 27, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS:# R33917; SDG: #5058185) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02114 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw)

Suddha Graves (Techlaw)

#### OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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## ESAT ATA VALIDATION EVALUATION CALCKLIST Contract # EP-W-06-016

02085/ CWW 2/34/12 TDF #:02/14 Revision #: 0 Task Order #: 0042 Case/DAS #: R33917 SDG #: <u>5058185</u> Site Name: Dimock Analysis Tame: Organic SOW #: SW-846 Method 8015B Reviewer: Ex. 4 - CBI CLP Laboratory Code: PACE EPA CLP TPO: Howard Pham Region: 5 EPARPM: Gene Nance Number of hours spent on review: 3 Number of samples: Validation Type: Date submitted to EPA: \_\_\_ Flat File Required **CRITERIA** NO <u>COMMENTS</u> Format according to Region III protocol Clarity of report Qualifiers applied correctly Consistency between narrative and data summary form(s) Error-free transcription EFFICIENCY OF <u>NO</u> **CONTRACTOR** Approval recommended for current submission Time spent on review is reasonable Technical Evaluation EPA Oversight ESD OVERSIGHT Oversight **EPA** DATES **ESAT** Received at EPA Oversight assigned Oversight received Oversight completed Feedback given Mailed to RPM

DCN: DVEPACHK.WPD

Rev.: 5/11//06



Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

Date:

February 24, 2012

Subject:

Organic Data Validation (M3 Level)

Case: R33917 Project: 5058185 Site: Dimock

From:

Ex. 4 - CBI

Organic Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

To:

Colleen Walling

**ESAT Region 3 Project Officer** 

#### <u>OVERVIEW</u>

Third party Case R33917, Project 5058185, consisted of twelve (12) aqueous samples including one (1) field blank analyzed for ethylene glycol. Samples were analyzed by Pace Analytical (PACE) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

#### **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage 4 Validation Manual). No problems were detected during the validation of this data set.

#### NOTES

- Sample FB10 was assumed to be a field blank by the data reviewer. This sample was used for Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses by the laboratory.
- Reported recoveries and Relative Percent Difference (RPD) in Laboratory Control Sample (LCS) analysis and MS/MSD analyses of sample FB10 were within control limits.
- No positive results were reported by the laboratory for the samples in this sample set.

### **ATTACHMENTS**

Appendix A - Glossary of Data Qualifier Codes

Appendix B – Data Summary Form(s)

Appendix C - Chain of Custody Records

Appendix D - Laboratory Case Narrative

DCN: R33917\_5058185

Appendix A Glossary of Data Qualifier Codes

#### GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

#### CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

- B = Not detected substantially above the level reported in laboratory or field blanks.
- R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
- N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

#### CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

#### OTHER CODES

- NJ = Qualitative identification questionable due to poor resolution.

  Presumptively present at approximate quantity.
- Q = No analytical result.

Case #: R33917

Project: 5058185

Site:

DIMOCK

Lab.:

PACE

Number of Water Samples: 12

Sample Number:		FB10		HW09		HW09-P		HW28a		HW28a-P	
Station Location:		FB10		HW09		HW09	'	HW28a	'	HW28a	
Laboratory ID:		5058185001		5058185002	•	5058185003		5058185004		5058185005	
Field QC:		Field Blank				ŀ					
Matrix:		Water		Water		Water		Water	ļ	Water	
Units:		mg/L		mg/L		mg/L		mg/L	į	mg/L	
Date Sampled:		02/03/2012		02/03/2012		02/03/2012		02/03/2012		02/03/2012	
Time Sampled:		14:09		15:20		15:16		11:49 ·	•	11:52	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	_
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	110		開塞開								
Sample Number:		HW28b-P		HW39		HW39-P		HW40		HW40-P	
Station Location:	į	HW28b		HW39		HW39		HW40		HW40	
Laboratory ID:		5058185006	i	5058185007		5058185008		5058185009		5058185010	
											•
Matrix:		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		·mg/L	
Date Sampled:		02/03/2012		02/03/2012		02/03/2012		02/02/2012		02/02/2012	
Time Sampled:	ĺ	14:27		10:42		11:13		15:39		15:44	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	210			的数据数数数		kije diakim					254
·								<del> </del>			
Sample Number:		HW41		HW41-P							
Station Location:		HW41		HW41							İ
Laboratory ID:		5058185011		5058185012	j						
Matrix:		Water		Water						•	ľ
Units:	1	mg/L		mg/L				J			1
Date Sampled:		02/02/2012		02/02/2012							-
Time Sampled:		16:12	ı	15:54				•		•	-
Dilution Factor:		1.0		1.0							~
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag

Ethylene glycol RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99.

DIM0205348

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III



Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 24, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS# R33917; SDG #: 480-15712-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02101 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw)

Suddha Graves (Techlaw)

OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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## ESAT DATA VALIDATION EVALUATION CHECKLIST Contract # EP-W-06-016

@2075/

Task Order #: 0042 Site Name: Dimock Analysis Type: Organic Reviewer: Ex. 4 - CBI CLP Laboratory Code: TAL			vision#: 0	Case/DAS SDG #: <u>480</u> SOW #: _	-15712-1	Iethod 8015B
EPA CLP TPO: Jennifer Ferz EPA RPM:			Region: 2  Number of hours s Number of sample Validation Type: Flat File Required	spent on revi	19	 
CRITERIA	YES	<u>NO</u>	COMMENTS			
Format according to Region III protocol				<u>.</u>		
Clarity of report		<u>.                                    </u>		· · · · · · · · · · · · · · · · · · ·	<del></del>	
Qualifiers applied correctly	- - 			: 		:
Consistency between narrative and data summary form(s)		_		<del></del>		
Error-free transcription	_/	<del></del>		<del></del>		
EFFICIENCY OF CONTRACTOR	YES	<u>NO</u>	COMMENTS			
Approval recommended for current submission						,
Time spent on review is reasonable	_			<i>1</i>		<u> </u>
Technical Evaluation	_3,		Wy Slery EPA	Oversight	)	
ESD OVERSIGHT				, /		
DATES	EPA		Oversight //	1 fr		ESAT
Received at EPA Oversight assigned Oversight received Oversight completed Feedback given Mailed to RPM	2/23/2012 2)/23/2012	z cun)	0/24/	1,2		



Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

Date:

February 23, 2012

Subject:

Organic Data Validation (M3 Level)

Case: R33917

Project: 480-15712-1

Site: Dimock

From:

Ex. 4 - CBI

Organic Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

To:

Colleen Walling

ESAT Region 3 Project Officer

#### **OVERVIEW**

Third party Case R33917, Project 480-15712-1, consisted of nineteen (19) aqueous samples including one (1) field blank analyzed for ethylene glycol, diethylene glycol, triethylene glycol, 2-methoxyethanol and 2-ethoxyethanol. Samples were analyzed by TestAmerica Buffalo (TAL BUF) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

#### **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage\_4\_Validation\_Manual). Areas of concern with respect to data usability are listed below.

#### MAJOR PROBLEM

Peaks were detected in the GC/FID Method 8015B glycols analysis within the retention time
window of target compounds diethylene glycol and triethylene glycol. However, the positive
identification of these target compounds was not confirmed via second GC column and/or
GC/MS analysis. For this reason, the target compounds were qualified "R" on the Data
Summary Forms (DSFs) as their absolute identity could not be proven.

#### MINOR PROBLEM

• The laboratory employed a four (4) point calibration curve for the analysis of the compounds requested; however, Method 8015B specifies the use of a five (5) point curve. No action was taken by the reviewer based on this deviation from the method.

#### **NOTES**

- Reported recoveries and Relative Percent Differences (RPDs) in Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) analyses and Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample HW34a were within control limits.
- The calibration factors calculated by the reviewer were slightly different than those calculated by the laboratory. Results calculated using these calibration factors were within rounding errors from laboratory and data validation results.

#### **ATTACHMENTS**

Appendix A – Glossary of Data Qualifier Codes

Appendix B – Data Summary Form(s)

Appendix C – Chain of Custody Records

Appendix D - Laboratory Case Narrative

DCN: R33917 480-15712-1

Appendix A
Glossary of Data Qualifier Codes

DIM0205357

# GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

#### CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

#### NO CODE = Confirmed identification.

- B = Not detected substantially above the level reported in laboratory or field blanks.
- R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
- N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

#### CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

## OTHER CODES

- NJ = Qualitative identification questionable due to poor resolution.

  Presumptively present at approximate quantity.
- Q = No analytical result.

Appendix B
Data Summary Forms

Case #: R33917

Project: 480-15712-1

Site:

DIMOCK

Lab.:

TAL BUF

Number of Water Samples: 19

Sample Number:	_	FB07		HW18		HW18-P		HW20		HW20-P	
Sampling Location:	i	FB07		HW18		HW18		HW20	j	HW20	
Laboratory ID:		480-1571	2-1	480-1571	2-2	480-1571	2-3	480-1571	2-4	480-1571	.2-5
Field QC:		Field Blank									
Matrix:	İ	Water			Water ·		Water			Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		·		01/30/201	2	01/30/201	2	01/30/201	2	01/30/201	12
Time Sampled :		14:15		11:27		11:52		16:12		16:29	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	3.103	ricia, il leigi									都特
Triethylene glycol	10	3.5	R	2.0	R	and the second s	Omendana a salah -	administratoris en dom interpreta processores		A collary representation and a collar	Effective Care Care
Diethylene glycol		4 0.82 to R.		0.75	R	0.68	$\mathbb{R}_{\mathbb{R}}$	0.67	R	1: 0.72 <sub>7</sub> :	R
2-Methoxyethanol	10			Resolver-wis of Volumes a Tor-	a propinskom kom (	wa Wattin Kalengaran	Ween one-flow		angionation.	STIERSTINGS A PERSON TO SE	, Magistanasan garan.
2-Ethoxyethanol	10	earen sin sine i									terres p

Sample Number :		HW25-P		HW26		HW26-P		HW29		HW29z	
Sampling Location:		HW25		HW26		HW26		HW29		HW29	
Laboratory ID:		480-1571	480-15712-6		2 <b>-</b> 7	480-1571	2-8	480-1571	2-9	4 <b>80-1</b> 571	2-10
Matrix :		Water	Water		Water		Water			Water	
Units:		mg/L	mg/L		mg/L		mg/L			mg/L	
Date Sampled:		01/30/201			2	01/31/201	2	01/31/201	12	01/31/201	12
Time Sampled :	•	15:32		10:26		11:37		18:18		18:18	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10		17.7						Lagrande Lagrande		
Triethylene glycol	10		· ·	4.1	R	1.7	R		KE SHOOLING KE	Constitute of distributed michael and	Distriber Resiliance
Diethylene glycol	-10	0.67	0.67 R		$\mathbf{R}$	0.73	R	0.62	${}^{\circ}\mathbf{R}$	0.74	R
2-Methoxyethanol	10	A STATE OF THE PROPERTY OF THE								The second secon	ar a september of the second
2-Ethoxyethanol	10				7. O						

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

DIM0205286

# DATA SUMMARY FORM: Volatiles

Case #: R33917

Project: 480-15712-1

Site:

DIMOCK

TAL BUF Lab.:

Sample Number:		HW32	1			HW33		HW33a-F		HW33b-I	?
Sampling Location:		HW32		HW32		HW33		HW33a		HW33b	
Laboratory ID:		480-1571	480-15712-11		2-12	480-1571	2-13	480-1571	2-14	480-1571	2-15
Matrix : Units :		Water			Water mg/L		Water mg/L			Water mg/L	
Date Sampled:		_	·		2	02/01/2012		mg/L 02/01/2012		02/01/201	12
Time Sampled:		10:45			10:50		10:49			11:42	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	≆10≨		Notes and the				45.45.00	April Park Park			
Triethylene glycol	10	1.7	R		!						
Diethylene glycol	10	0.75	0.75 R/E		R	0.51	R	0.97	$\mathbf{R}$	- 0.89	1R.,
2-Methoxyethanol	10	Committee of the Commit				,					
2-Ethoxyethanol	10.		enterprise de la companya de la companya de la companya de la companya de la companya de la companya de la comp			green van Grand I		ere paper project (1) Paper S			

Sample Number:		HW34a		HW34a-I	· ·	HW35		HW52			
Sampling Location:		HW34a		HW34a		HW35		HW52			
Laboratory ID:		480-1571	2-16	480-1571	2-17	480-1571	2-18	480-1571	2-19		
ľ											
Matrix :		Water			Water		Water		i		
Units :		mg/L	ng/L r		mg/L		mg/L				
Date Sampled :		02/01/201	_		2	01/31/2012		01/31/201	[2		
Time Sampled :		15:47		15:55		11:49		15:22		•	
Dilution Factor:		1.0		1.0		1.0		1.0			
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	**10,*										
Triethylene glycol	10			3.0	R						
Diethylene glycol	10.				Ŕ			0.90.	R		
2-Methoxyethanol	10					!				,,,	
2-Ethoxyethanol	10	r and selection of the						Control of the Contro			

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III



Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 24, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS#: R33917; Case #: 480-15814-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02097 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw) Suddha Graves (Techlaw)

OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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# ESAT DATA VALIDATION EVALUATION CHECKLIST Contract # EP-W-06-016

TO# 0042	TACH	0009	7 Data Validation Co	QWar 62/22/12
Task Order #: _ 0042Site Name: _ DimockAnalysis TypeEx. 4 - C	TDF #: P	02085	Revision #:0Project 480-15814-1SOW #:	:#: R33917
CLP Laboratory Code: _1	ALBUF			
EPA CLP TPO: _Daniel S EPA RPM:			Region:3	
cc:EPA			Number of hours spent on rev Number of samples:	view:
Date submitted to EPA:	_		Validation Type: Flat File Required	M3 Yes _X No
CRITERIA	YES	<u>NO</u>	COMMENTS	
Format according to Region III protocol	<u> </u>			
Clarity of report				
Qualifiers applied correctly	<u> </u>	<del>.</del>		· · · : :
Consistency between narrative and data summary form(s)				
Error-free transcription				· · · · · · · · · · · · · · · · · · ·
EFFICIENCY OF CONTRACTOR	YES	<u>NO</u>	COMMENTS	
Approval recommended for current submission	_	<del></del>		
Time spent on review is reasonable				
Technical Evaluation	4.0		Januel G. Burn EPA Oversight	<u>a 21,22 12012</u> 2124 1201298
ESD OVERSIGHT		0		
DATES	EPA	C <sup>1</sup> c	Oversight A. A.	ESAT
Received at EPA Oversight assigned Oversight received Oversight completed Feedback given	2137150 31391501;	24/4 12/4	2/22/2012 2/22/2012 2/22/2012	SQ tools
Mailed to RPM			~10~100 107/	12/00/10 to 03: drive

DCN: DVEPACHK.WPD

Rev.: 5/11//06



Lockheed Martin IS&GS - Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

Date:

February 22, 2012

Subject:

Organic Data Validation (M3 Level)

Case: R33917

Project: 480-15814-1

Site: Dimock

From:

Ex. 4 - CBI

Senior Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

To:

Colleen Walling

**ESAT Region 3 Project Officer** 

# <u>OVERVIEW</u>

Third party Case R33917, Project 480-15814-1, consisted of twenty (20) aqueous samples including three (3) field blanks and one (1) rinsate blank analyzed for ethylene glycol, diethylene glycol, triethylene glycol, 2-methoxyethanol and 2-ethoxyethanol. Samples were analyzed by TestAmerica Buffalo (TAL BUF) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

# **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage\_4\_Validation\_Manual). Areas of concern with respect to data usability are listed below.

#### MAJOR PROBLEM

Peaks were detected in the GC/FID Method 8015B glycols analysis within the retention time window of target compounds diethylene glycol and triethylene glycol. However, the positive identification of these target compounds was not confirmed via second GC column and/or GC/MS analysis. For this reason, the target compounds were qualified "R" on the Data Summary Forms (DSFs) as their absolute identity could not be proven.

# MINOR PROBLEM

• The laboratory employed a four (4) point calibration curve for the analysis of the compounds requested; however, Method 8015B specifies the use of a five (5) point curve. No action was taken by the reviewer based on this deviation from the method.

# NOTES

- Reported recoveries and Relative Percent Differences (RPDs) in Laboratory Control Sample (LCS) analyses and Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample HW45 were within control limits.
- The calibration factors calculated by the reviewer were slightly different than those calculated by the laboratory. Results calculated using these calibration factors were within rounding errors from laboratory and data validation results.

# **ATTACHMENTS**

Appendix A - Glossary of Data Qualifier Codes

Appendix B – Data Summary Form(s).

Appendix C – Chain of Custody Records

Appendix D - Laboratory Case Narrative

DCN: R33917\_480-15814-1

# Appendix A

Glossary of Data Qualifiers

# GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

# CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

- U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.
- NO CODE = Confirmed identification.
  - B = Not detected substantially above the level reported in laboratory or field blanks.
  - R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
  - N = Tentative identification. Consider present.
     Special methods may be needed to confirm its presence or absence in future sampling efforts.

# CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

# OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

# Appendix B

Data Summary Forms

#### **DATA SUMMARY FORM: Glycols**

Page \_1\_\_ of \_\_2\_

DAS: R33917

PROJECT #: 480-15814-1

Site :

DIMOCK

Number of Soil Samples: 0

Number of Water Samples: 20

Lab.:

**TALBUF** 

Sample Number :		EB02		FB08		FB09		FB10		HW09	
Sampling Location :		EB02,		FB08		FB09		FB10		HW09	
Laboratory ID:		480-15814	<b>I-1</b>	480-15814	-2	480-15814	-3	480-15814	-4	480-15814	-5
Field QC:		Rinsate Bl	ank	Field Blank	(	Field Blank	•	Field Blant	k		
Matrix :	1	Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/05/2012		2/01/2012		2/02/2012		2/03/2012		2/03/2012	
Time Sampled :		15:00		14:45		10:15		14:09		15:20	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10.					Series de Marco				A Company of the Property	
Triethylene glycol	10	4.0	R								
Diethylene glycol	10	0.54	R			#₹0.52 FX	R				
2-Methoxyethanol	10									January Market and Control of the Control	Lorenza burekur
2-Ethoxyethanol	10						en en				

Sample Number :	•	HW09-P		HW28A		HW28A-P		HW28B-P		HW39	-
Sampling Location :	:	HW09		HW28A		HW28A		HW28B		HW39	
Laboratory ID:		480-15814	1-6	480-15814	-7	480-15814	-8	480-15814	1-9	480-15814	-10
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/03/2012		2/03/2012		2/03/2012		2/03/2012		2/03/2012	
Time Sampled :		15:16		11:49		11:52		14:27		14:42	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	. Result	Flag	Result	Flag		Flag
Ethylene glycol	<b>110</b>	M. Farris	elite:			Maria de Carra	独影			Manager 1	
Triethylene glycol	10				, and a second	2.7	R				
Diethylene glycol	10	0.51	R			0.59	R				
2-Methoxyethanol	10	·									
2-Ethoxyethanol	10							Augustinia			

RL = Reporting Limit

\*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

# **DATA SUMMARY FORM: Glycols**

Page \_2\_\_ of \_\_2\_

DAS: R33917

PROJECT #: 480-15814-1

Site:

DIMOCK

Lab.:

TALBUF

Sample Number :		HW39-P		HW40		HW40-P		HW41		HW41-P	_
Sampling Location :		HW39		HW40		HW40		HW41		HW41	
Laboratory ID:		480-15814	1-11	480-15814	-12	480-15814	-13	480-15814	-14	480-15814	-15
Field QC:											
Matrix:		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/03/2012		2/02/2012		2/02/2012		2/02/2012		2/02/2012	
Time Sampled :		11:13·		15:39		15:44		16:12		15:54	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10,		THE STATE			4 10 24 19 19	Tim:		Columb Transfer		
Triethylene glycol	10					3.0	R				
Diethylene glycol	10	is has tall				0.66	·R	. 0.59	R.		
2-Methoxyethanol	10									•	
2-Ethoxyethanol	10.										

RL = Reporting Limit

\*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

Sample Number :		HW-42		HW-42Z	•	HW45		HW46		HW46-P	
Sampling Location :		HW-42		HW-42		HW45	-	HW46		HW46	
Laboratory ID:		480-15814	<b>1-16</b>	480-15814	-17	480-15814	-18	480-15814	f-19	480-15814	-20
Field QC:				l		ľ					
Matrix :		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :	npled :		2/02/2012		2/02/2012			2/02/2012		2/02/2012	
Time Sampled :		10:28		10:29		10:28		11:39		11:24	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10%		Original NOON 132	aroka	Christian Cultipopius Caree Care		A Mer			NAME OF A	
Triethylene glycol	10		ŀ					6.2	R	1.7	R
Diethylene glycol	10					0.55	·R	1.8	Ŕ.	0.54	R
2-Methoxyethanol	10									ŀ	
2-Ethoxyethanol	10				42.0						

RL = Reporting Limit

\*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III



Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 24, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS#33917; SDG#: 480-15770-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: #02096 Data Validation

TO: #0042

TDF: 02085 Sample Log-in Processing

cc: Gene Nance (Techlaw) Suddha Graves (Techlaw)

OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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Customer Service Hotline: 1-800-438-2474

# ESAT LATA VALIDATION EVALUATION CHECKLIST Contract # EP-W-06-016

020%

Task Order #: <u>0042</u>	TDF #: <u>_c</u>	2085	Revision #: 0		#: <u>R33917</u>
Cita Nama, Dimaale				SDG #: <u>48</u> 0	0-15770-1
Analysis Tex. 4 - CBI				SOW #: _	SW-846 Method 8015B
Reviewer: Ex. 4 - CBI			<u> </u>		
CLP Laboratory Code: 1A	L BUF		<del></del>		<del></del>
EPA CLP TPO: Jennifer F EPA RPM:			Region: <u>2</u>	-	
cc:			Number of hou	rs spent on rev	iew: 4
			Number of sam	ples:	<u>20                                    </u>
Date submitted to EPA:	2/22/12		Validation Type Flat File Requir		<u>M3</u> Yes No
CRITERIA	YES	<u>NO</u>	<u>COMMENTS</u>		
Format according to Region III protocol	<u>i</u>			<del></del>	
Clarity of report	منن ِ	<del></del>			
Qualifiers applied correctly		· .		· :	
correctly	<del>-</del>				<del></del> _
Consistency between					
narrative and data					
summary form(s)	<u>~</u>				
Error-free transcription				·	
	*				
EFFICIENCY OF CONTRACTOR	YES	<u>NO</u>	COMMENTS		
Approval recommended for current submission				· · · · · · · · · · · · · · · · · · ·	
Time spent on review is reasonable					
Technical Evaluation	4.0		Januar B.	PA Oversight	2/24/2012
ESD OVERSIGHT	•				
DATES	EPA		Oversight	1-U-D	ESAT
Received at EPA Oversight assigned Oversight received Oversight completed		<del>-</del>	2/22/20	12- 12	
Feedback given Mailed to RPM		<del></del>	0 10 - 00		<del></del>

DCN: DVEPACHK.WPD



Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

Date:

February 22, 2012

Subject:

Organic Data Validation (M3 Level)

Case: R33917

Project: 480-15770-1

Site: Dimock

From:

Ex. 4 - CBI

Organic Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

To:

Colleen Walling

ESAT Region 3 Project Officer

#### **OVERVIEW**

Third party Case R33917, Project 480-15770-1, consisted of twenty (20) aqueous samples including five (5) field blanks and one (1) rinsate blank analyzed for ethylene glycol, diethylene glycol, triethylene glycol, 2-methoxyethanol and 2-ethoxyethanol. Samples were analyzed by TestAmerica Buffalo (TAL BUF) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

#### **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage\_4\_Validation\_Manual). Areas of concern with respect to data usability are listed below.

# **MAJOR PROBLEM**

Peaks were detected in the GC/FID Method 8015B glycols analysis within the retention time
window of target compounds diethylene glycol and triethylene glycol. However, the positive
identification of these target compounds was not confirmed via second GC column and/or
GC/MS analysis. For this reason, the target compounds were qualified "R" on the Data
Summary Forms (DSFs) as their absolute identity could not be proven.

# MINOR PROBLEM

• The laboratory employed a four (4) point calibration curve for the analysis of the compounds requested; however, Method 8015B specifies the use of a five (5) point curve. No action was taken by the reviewer based on this deviation from the method.

# NOTES -

- Reported recoveries and Relative Percent Differences (RPDs) in Laboratory Control Sample (LCS) analyses and Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of samples HW02 and HW05 were within control limits.
- The calibration factors calculated by the reviewer were slightly different than those calculated by the laboratory. Results calculated using these calibration factors were within rounding errors from laboratory and data validation results.

# **ATTACHMENTS**

Appendix A - Glossary of Data Qualifier Codes

Appendix B – Data Summary Form(s)

Appendix C - Chain of Custody Records

Appendix D – Laboratory Case Narrative

DCN: R33917\_480-15770-1

Appendix A Glossary of Data Qualifier Codes

# GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

#### CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

#### NO CODE = Confirmed identification.

- B = Not detected substantially above the level reported in laboratory or field blanks.
- R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
- N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

#### CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

#### OTHER CODES

- NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.
- Q = No analytical result.

Appendix B Data Summary Forms

# DATA SUMMARY FORM: Volatiles

Case #: R33917

Project: 480-15770-1

Site:

DIMOCK

Lab.:

TAL BUF

Number of Water Samples: 20

Sample Number:		HW02		EB01		FB02		FB03		FB04	
Sampling Location:		HW02		EB01		FB02		FB03		FB04	
Laboratory ID:		480-15770-1		480-15770-2		480-15770-3		480-15770-4		480-15770-5	
Field QC:				Equipment B	lank	Field Blank		Field Blank		Field Blank	
Matrix:		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled:		01/25/2012		01/28/2012		01/24/2012		01/25/2012	,	01/26/2012	
Time Sampled:		12:58		11:26		12:11		10:01		09:13	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10.										
Triethylene glycol	10	anno a destinatore de comedicación a producero a	rantaka surra	- to company and control of the c	- the decomposite to	Commence of the State of State	MARING AND	1.7	R	all contributions which have the and dide	
Diethylene glycol	10.	0.64	R-	∉ 0.55	$\mathbf{R}$	### 0153 CF.S.	· R	0.56	R	# 0:59 · · ·	R
2-Methoxyethanol	10	A CAN PROPERTY OF LARGE WALL MADE AND AND THE COMME		The same of the sa		and an investment of the control of		ann bring garagement (Colores was yet), NWY 1942 SEL NO.	State of the State		
2-Ethoxyethanol	104				San Silak Sebelahan Sebelah						

Sample Number:		FB05		FB06		HW01		HW02z		HW04	
Sampling Location:		FB05		FB06		HW01		HW02z	•	HW04	
Laboratory ID:		480-15770-6		480-15770-7	1	480-15770-8	İ	480-15770-9		480-15770-1	0
Field QC:		Field Blank		Field Blank		·					
Matrix:		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled:		01/27/2012		01/30/2012		01/25/2012		01/25/2012		01/24/2012	
Time Sampled:		09:40		09:30		16:31		12:59		14:33	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag		Flag		Flag
Ethylene glycol	101										
Triethylene glycol	10										1
Diethylene glycol	,10 s	: 0.56	R	0.56	R	0.56	R.	0.54	$\mathbf{R}$	0.52	Ř.
2-Methoxyethanol	10										
2-Ethoxyethanol	10										Li Calumbia Li Tasarina Si Tasarina

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

# DATA SUMMARY FORM: Volatiles

Case #: R33917

Project: 480-15770-1

Site: Lab.: DIMOCK TAL BUF

Sample Number :		HW05		HW06		HW08a		HW12		HW13	
Sampling Location :		HW05		HW06		HW08a		HW12		HW13	
Laboratory ID :		480-15770-11		480-15770-12		480-15770-13		480-15770-14		480-15770-15	
Matrix:		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled:		01/26/2012		01/26/2012		01/25/2012		01/26/2012		.01/30/2012	
Time Sampled:		11:35		15:30		11:46		13:23		11:23	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	- 10	le di degliger valuzio i pri									
Triethylene glycol	10	2.2	R			3.0	R				
Diethylene glycol	10	0.68	R							0.57	R
2-Methoxyethanol	10										
2-Ethoxyethanol	10	Silinas A						en establication			

Sample Number :	HW14		HW14-P		HW17		HW24		HW24-P	
Sampling Location:	HW14		HW14		HW17		HW24		HW24	
Laboratory ID:	480-15770-16		480-15770-17		480-15770-18		480 <b>-</b> 15770-19		480-15770-20	
Matrix :	Water		Water		Water		Water		Water	
Units:	mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled:	01/26/2012		01/26/2012		01/27/2012		01/27/2012		01/27/2012	
Time Sampled:	17:13		19:15		11:40		12:09		13:18	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Volatile Compound RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol				3074111 276 1936 277 273						
Triethylene glycol 10				ŀ						
Diethylene glycol - 10	0.59	R		R	0.54	R	* £ 0.57	R	0.56	R
2-Methoxyethanol 10	}									
2-EthoxyethanoI 10				ancos may NAC 20095			ngal is still between in 1881 in 1887 tok Still 1882 in 1881 tok Still			

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III



Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 23, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS# R33917 SDG#: 480-15895-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02099 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw) Suddha Graves (Techlaw)

OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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Customer Service Hotline: 1-800-438-2474

### ESAT DATA VALIDATION EVALUATION CHECKLIST Contract # EP-W-06-016

02099

Task Order #: _ 0042 Site Name: _ Dimock Analysis Type: Reviewer: _ Ex. 4 - CBI CLP Laborator	F	Project #:	Revision #:0 Project #: _R33917 480-15895-1 SOW #:N/A
EPA CLP TPO: _Daniel Slizys_ EPA RPM: cc: EPA  Date submitted to EPA:2/2.			Region:3  Number of hours spent on review:35  Number of samples:12  Validation Type:M3  Flat File Required Yes _X_ No
CRITERIA	<u>YES</u>	<u>NO</u>	COMMENTS
Format according to Region III protocol	$\checkmark$		
Clarity of report	$\mathcal{L}$		<u> </u>
Qualifiers applied correctly	<b>V</b>		· · · · · · · · · · · · · · · · · · ·
Consistency between narrative and data summary form(s)	100		
Error-free transcription	$\forall$		
EFFICIENCY OF CONTRACTOR	<u>YES</u>	<u>NO</u>	COMMENTS
Approval recommended for current submission	1		
Time spent on review is reasonable	1		
Technical Evaluation		<u> </u>	EPA Oversight
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Rev.: 5/11//06



Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Pt. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

DATE:

February 23, 2012

SUBJECT:

Organic Data Validation (Level M3)

Site: Dimock

CASE: R33917, PROJECT: 480-15895-1

FROM:

Ex. 4 - CBI

Senior Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

TO:

Colleen Walling

ESAT Region 3 Project Officer

#### **OVERVIEW**

Case R33917, Project 480-15895-1, from the Dimock site consisted of twelve (12) aqueous samples analyzed for ethylene glycol. All samples were submitted to TestAmerica (TALBUF) for analysis. The sample set contained one (1) rinsate blank and one (1) field blank. The samples were analyzed according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

### **SUMMARY**

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage 4 Validation Manual). No problems were detected during validation of these data.

### NOTES

- No positive results were reported in the field samples in this data set. Therefore, no confirmation analyses were required.
- Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) and Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries and Relative Percent Differences (RPDs) were within control limits.
- Sample HW30-P was listed on the Chain of Custody (COC) record. However, a samples container for this sample was not received by the laboratory.

#### **ATTACHMENTS**

- 1) Appendix A Glossary of Data Qualifiers
- 2) Appendix B Data Summary Forms
- 3) Appendix C Chain of Custody (COC) Records
- 4) Appendix D Laboratory Case Narrative

DCN: R33917\_Project 480-15895-1DimockM3

### Appendix A

Glossary of Data Qualifiers

### GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

### **CODES RELATED TO IDENTIFICATION**

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

- B = Not detected substantially above the level reported in laboratory or field blanks.
- R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
- N = Tentative identification. Consider present.
   Special methods may be needed to confirm its presence or absence in future sampling efforts.

### CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

### OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

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Appendix B

Data Summary Forms

Page \_1\_\_ of \_\_1\_\_

CASE: R33917

PROJECT#: 480-15895-1

Number of Soil Samples: 0

Site:

DIMOCK

Number of Water Samples: 12

Lab.:

TALBUF

				<del> </del>							
Sample Number :		EB02		FB11		HW15a		HW15a-P		HW30	
Sampling Location :		EB02		FB11		HW15a		HW15a		HW30	
Laboratory ID:		480-1589	5-1	480-1589	5-2	480-15895	5-3	480-1589	5-4	480-1589	5-5
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units:		mg/L	,	mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/05/201:	2	2/06/2013	2	2/07/2012	}	2/07/2012	2	2/06/201	2
Time Sampled :		15:00		14:36		10:47		10:55		14:34	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10										
Sample Number :	_	IHW31		HW31-P		IHW31z		HW43		HW43-P	
Sampling Location :		HW31		HW31		HW31		HW43		HW43-P	
Laboratory ID:		480-1589	<b>5</b> 7	480-1589		480-15895	۵:	480-1589	ε 10	480-1589	5 1 i
Field OC:		400-1308	J-7	400-1309	)-0	400-13095	7-3	400-1005	J- 10	400-1508	Ð-11
riela QC.											
Matrix:		Water		Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/06/2012	2.	2/06/2012	2	2/06/2012		2/06/2012	2	2/06/2013	2
Time Sampled :	•	18:20		18:28		18:20		12:06		12:19	
Dilution Factor:	:	1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Resuit	Flag		Flag
Ethylene glycol	10	<u> </u>								,-,	
Sample Number :		HW45		HW45-P		<del>,</del>				f	
Sampling Location :		HW45		HW45-F							
Laboratory ID:		480-1589	5:12	480-1589	.12	l					
Field QC:	1	400-1009	J-12	400-1009	1-13	<b>!</b>					
Field QC.		ĺ									
Matrix:		Water		Water							
Units:		mg/L		mg/L							
Date Sampled :		2/06/2012	2	2/06/2012	!						
Time Sampled :		10:28		11:06							
Dilution Factor :		1.0		1.0							
Glycols	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10					1					
OL - Demanting Limit			4.5 .7	a a 1 a 1 E .		A = 4 1 1			~~~		

\*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

RL = Reporting Limit \*Action Lev
To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III



### **Environmental Sciences Center** 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 23, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling (LLL) (. (W) on Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS:# R33917; SDG: #480-16100-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02100 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw) Suddha Graves (Techlaw)

### OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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## E DATA VALIDATION EVALUATION ECKLIST Contract # EP-W-06-016

		5/02/00		
Task Order #: _ 0042	TDF #:	02085	Revision #:0 Project #: _R33917	
Site Name: _Dimock		Project #:	480-16100-1	
Analysis Type Ex. 4 - CE	21		SOW #:N/A	
CLP Laboratory Code: _TA	71   17:18			
EPA CLP TPO: _Daniel Sli			Region:3	•
EPA RPM:			Rogion	
cc:			Number of hours spent on review:	
_EPA			Number of samples: 20	
Date submitted to EPA:	2/23/12	<u> </u>	Validation Type:M3 Flat File Required Yes _X_ No	
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Rev.: 5/11//06

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Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

DATE:

February 23, 2012

SUBJECT:

Organic Data Validation (Level M3)

Site: Dimock

CASE: R33917, PROJECT: 480-16100-1

FROM:

Ex. 4 - CBI

Senior Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

TO:

Colleen Walling

ESAT Region 3 Project Officer

### **OVERVIEW**

Case R33917, Project 480-16100-1, from the Dimock site consisted of twenty (20) aqueous samples analyzed for ethylene glycol. All samples were submitted to TestAmerica (TALBUF) for analysis. The sample set contained three (3) field blanks. The samples were analyzed according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

### SUMMARY

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage\_4\_Validation\_Manual). Areas of concern with data usability are listed below.

### MINOR PROBLEM

• The samples were not preserved when received by the laboratory. Samples FB12, HW51 and HW51-P, collected 2/07/2012, were analyzed 2/15/2012 to 2/17/2012. The technical holding time of seven (7) days for unpreserved organic compounds in these samples was exceeded by one (1) to three (3) days. No positive results were reported in this sample. Quantitation limits were qualified "UL" on the Data Summary Form (DSF).

### NOTES

 No positive results were reported in the field samples in this data set. Therefore, no confirmation analyses were required.

• Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) and Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries and Relative Percent Differences (RPDs) were within control limits.

### **ATTACHMENTS**

- 1) Appendix A Glossary of Data Qualifiers
- 2) Appendix B Data Summary Forms
- 3) Appendix C Chain of Custody (COC) Records
- 4) Appendix D Laboratory Case Narrative

DCN: R33917 Project 480-16100-1DimockM3

### Appendix A

Glossary of Data Qualifiers

### GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

### CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

- U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.
- NO CODE = Confirmed identification.
  - B = Not detected substantially above the level reported in laboratory or field blanks.
  - R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
  - N = Tentative identification. Consider present.
    Special methods may be needed to confirm its presence or absence in future sampling efforts.

### **CODES RELATED TO QUANTITATION**

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

### OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

Appendix B

Data Summary Forms

CASE: R33917

PROJECT #: 480-16100-1

Site: Lab.: DIMOCK

Number of Soil Samples: 0 Number of Water Samples: 20

TALBUF

Ethylene glycol	10	UL		rtesuit 149	result lag	recount hag
Glycols	RL	Result Flag	Result Flag	Result Flag	Result Flag	Result Flag
Dilution Factor :		1.0	1.0	1.0	1.0	1.0
Time Sampled :		13:35	09:00	13:36	10:53	10:53
Date Sampled :		2/07/2012	2/08/2012	2/09/2012	2/09/2012	2/09/2012
Units:		mg/L	mg/L	mg/L	mg/L	mg/L
Matrix:		Water	Water	Water	Water	Water .
Field QC:		Field Blank	Field Blank	Field Blank		
Laboratory ID:		480-16100-1	480-16100-2	480-16100-3	480-16100-4	480-16100-5
Sampling Location :		FB12	FB13	FB14	HW21	HW21
Sample Number :		FB12	FB13	FB14	HW21	HW21Z

Sample Number :		HW22	HW22-P	HW23	HW23-P	HW38	
Sampling Location :		HW22	HW22-P	HW23	HW23-P	HW38	
Laboratory ID:		480-16100-6	480-16100-7	480-16100-8	480-16100-9	480-16100-10	ָׁכ
Field QC:			}	]		]	
Matrix:		Water	Water	Water	Water	Water	
Units:		mg/L	mg/L	mg/L	mg/L	mg/L	
Date Sampled :	. 1	2/09/2012	2/09/2012	2/08/2012	2/08/2012	2/08/2012	
Time Sampled :	:	10:42	10:50	15:42	15:39	10:41	
Dilution Factor :		1.0	1.0	1.0	1.0	1.0	
Glycols	RL	Result Flag	Result Flag	Result Flag	Result Flag	FI	lag
Ethylene glycol	10						

Sample Number :		HW38-P		HW44		HW47		HW47-P		HW48	
Sampling Location :		HW38-P		HW44		HW47		HW47-P		HW48	
Laboratory ID:		480-16100	)-11	480-16100-	12	480-16100	-13	480-16100	1-14	480-16100	-15
Field QC:				1		ĺ		ľ			
Matrix:		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		2/08/2012		2/09/2012		2/08/2012		2/08/2012		2/08/2012	
Time Sampled:		10:52		14:49		11:50		12:25		16:06	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Glycols	RL	Result	Flag	Result F	lag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10						1				

Sample Number :		HW48Z		HW49		HW49-P		HW51		HW51-P	
Sampling Location :		HW48		HW49	•	HW49-P		HW51		HW51-P	
Laboratory ID:		480-16100-	16	480-16100	-17	480-16100	-18	480-16100	-19	480-16100	-20
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units:		mg/L		mg/L		mg/L		mg/L		mg/L	. :
Date Sampled :		2/08/2012		2/09/2012		2/09/2011		2/07/2012		2/07/2012	
Time Sampled :	,	16:06		14:11		14:26		13:48		13:56	
Dilution Factor :		1.0		1.0		1.0	_	1.0		1.0	
Glycols	RL	Result F	lag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol	10			1.5					UL		ÜĿ

RL = Reporting Limit

\*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III



### Environmental Sciences Center 701 Mapes Road Fort Meade, Maryland 20755-5350

DATE:

February 23, 2012

SUBJECT:

Region III Data QA Review

FROM:

Colleen Walling

Region III ESAT RPO (3EA20)

TO:

Rich Fetzer

Remedial Project Manager (3HS31)

Attached is the organic data validation report for the Dimock Residential Groundwater site (DAS:# R33917; SDG: #5057788) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0042

TDF: 02102 Data Validation

TO: #0042

TDF: #02085 Sample log-in processing

cc: Gene Nance (Techlaw) Suddha Graves (Techlaw)

#### OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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Task Order #: 0042 Site Name: Dimock Analysis T Reviewer: Ex. 4 - CBI CLP Laboratory Code: T		<u> </u>	SDG #: <u>505</u>	#: R33917 7788 SW-846 Method 8015B
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Qualifiers applied correctly	-			
Consistency between narrative and data summary form(s)  Error-free transcription	V		·	
EFFICIENCY OF CONTRACTOR	YES	<u>NO</u>	COMMENTS	· .
Approval recommended for current submission	1	<del></del>		
Time spent on review is reasonable Technical Evaluation	4.		EPA Oversight	- Feb- 23 2012
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DCN: DVEPACHK.WPD

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Lockheed Martin IS&GS - Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Telephone 410-305-3037 Facsimile 410-305-3597

Date:

February 23, 2012

Subject:

Organic Data Validation (M3 Level)

Case: R33917 Project: 5057788 Site: Dimock

From:

Ex. 4 - CBI

Organic Data Reviewer

Ex. 4 - CBI

Senior Oversight Chemist

To:

Colleen Walling

**ESAT Region 3 Project Officer** 

### **OVERVIEW**

Third party Case R33917, Project 5057788, consisted of twenty (20) aqueous samples including five (5) field blanks analyzed for ethylene glycol. Samples were analyzed by Pace Analytical (PACE) according to Test Methods for Evaluating Solid Waste SW-846 Method 8015B.

### SUMMARY

Data were validated according to Region 3 Modifications to the National Functional Guidelines for Organic Data Review, Level M3 and is assigned the Superfund Data Validation Label S4VM (Stage\_4\_Validation\_Manual). No problems were detected during the validation of this data set.

### NOTES

- Reported recoveries and Relative Percent Difference (RPD) in Laboratory Control Sample (LCS) analysis and Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample HW02 were within control limits.
- No positive results were reported by the laboratory for the samples in this sample set.
- Chain-of-Custody records were not included in the data package. Sample information was obtained through laboratory case narrative.

### **ATTACHMENTS**

Appendix A – Glossary of Data Qualifier Codes

Appendix B – Data Summary Form(s)

Appendix C – Laboratory Case Narrative

DCN: R33917\_ 5057788

Appendix A Glossary of Data Qualifier Codes

### GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

#### CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

- B = Not detected substantially above the level reported in laboratory or field blanks.
- R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
- N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

### CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = Analyte present. Reported value may not be accurate or precise.
- K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- UL = Not detected, quantitation limit is probably higher.

### OTHER CODES

- NJ = Qualitative identification questionable due to poor resolution.

  Presumptively present at approximate quantity.
- Q = No analytical result.

# Appendix B Data Summary Forms

Case #: R33917

Project: 5057788

Site:

DIMOCK

Lab.:

PACE

Number of Water Samples: 20

Sample Number :	-	FB01		FB02	_	FB03		FB04		FB05	
Laboratory ID:		5057788001		5057788002		5057788003		5057788004		5057788005	
Field QC:		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
Matrix:		Water	·	Water		Water		Water		Water	
Units :		mg/L		mg/L		mg/L		mg/L		mg/L	
Date Sampled :		01/23/2012		01/24/2012		01/25/2012		01/26/2012		01/27/2012	-
Time Sampled:		14:42		12:11		10:01		09:13		09:40	
Dilution Factor:		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
	£10#	ROGRAMAS.			TE HO				Sprain.		
Stranger kan (m 2 March 2000) - 40 mentropen (2000) penggapan an	olere et de la company de la c	Exchange Kinner and Harman Ander L	7.3.12.44.2584	Personal Section in investigation	ma supersity	South Lighter and existent Table 2 or Concentrate as any is a receipt to	and with the last	NAMES AND PASSESS AND PASSESS OF REAL PROPERTY.	ne-eum	Name of Control of the Party of	
Sample Number:		HW01		HW02	_	HW02z		HW04		HW05	
Laboratory ID:		5057788006		5057788007		5057788008		5057788009		5057788010	
1		ì		<b> </b>		1					]
Matrix:		Water		Water		Water		Water		Water	, ,
Units:		mg/L	:	mg/L		mg/L		mg/L		mg/L	
Date Sampled:		01/25/2012	İ	01/25/2012		01/25/2012		01/24/2012		01/26/2012	<u> </u>
Time Sampled:		16:31		12:58	•	12:59		14:33		11:35	
Dilution Factor :		1.0		1.0	_ :	1.0		1.0		1.0	
Volatile Compound	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Ethylene glycol.	到0億		Tuning PP								
								· · · · · · · · · · · · · · · · · · ·			
Sample Number :		HW06		HW08a		HW12		HW14		HW14-P	
Sample Number : Laboratory ID :		HW06 5057788011		HW08a 5057788012		HW12 5057788013		HW14 5057788014		HW14-P 5057788015	
1 -		5057788011				5057788013		5057788014		5057788015	
Laboratory ID :  Matrix :		5057788011 Water		5057788012 Water		5057788013 Water		ľ			
Laboratory ID :  Matrix : Units :		5057788011 Water mg/L		5057788012 Water mg/L		5057788013 Water mg/L		5057788014 Water mg/L		5057788015 Water mg/L	
Laboratory ID :  Matrix : Units : Date Sampled :		5057788011 Water mg/L 01/26/2012		5057788012 Water mg/L 01/25/2012		5057788013 Water mg/L 01/26/2012		5057788014 Water mg/L 01/26/2012		5057788015 Water mg/L 01/26/2012	
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled:		5057788011  Water mg/L 01/26/2012 15:30		5057788012  Water mg/L 01/25/2012 11:46		5057788013  Water mg/L 01/26/2012 13:23		5057788014  Water mg/L 01/26/2012 17:13		5057788015 Water mg/L 01/26/2012 19:15	
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:		5057788011 Water mg/L 01/26/2012 15:30 1.0		5057788012 Water mg/L 01/25/2012 11:46 1.0		5057788013  Water mg/L 01/26/2012 13:23 1.0		5057788014  Water mg/L 01/26/2012 17:13 1.0		5057788015 Water mg/L 01/26/2012 19:15 1.0	
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound	RL	5057788011  Water mg/L 01/26/2012 15:30 1.0  Result	Flag	5057788012  Water mg/L 01/25/2012 11:46	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0	Flag	5057788015 Water mg/L 01/26/2012 19:15	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound	RL 10	5057788011 Water mg/L 01/26/2012 15:30 1.0	Flag	5057788012 Water mg/L 01/25/2012 11:46 1.0	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0	Flag	5057788015 Water mg/L 01/26/2012 19:15 1.0	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound Ethylene glycol	10	5057788011  Water mg/L 01/26/2012 15:30 1.0  Result	Flag	Water mg/L 01/25/2012 11:46 1.0 Result	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0  Result	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0  Result	Flag	5057788015 Water mg/L 01/26/2012 19:15 1.0 Result	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol	10	5057788011  Water mg/L 01/26/2012 15:30 1.0  Result HW17	Flag	5057788012  Water mg/L 01/25/2012 11:46 1.0 Result  HW19	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0  Result  HW19-P	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0  Result	Flag	5057788015 Water mg/L 01/26/2012 19:15 1.0 Result HW24-P	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound Ethylene glycol	10	5057788011  Water mg/L 01/26/2012 15:30 1.0  Result	Flag	Water mg/L 01/25/2012 11:46 1.0 Result	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0  Result	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0  Result	Flag	5057788015 Water mg/L 01/26/2012 19:15 1.0 Result	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound Ethylene glycol  Sample Number: Laboratory ID:	10	5057788011  Water mg/L 01/26/2012 15:30 1.0  Result HW17	Flag	Water mg/L 01/25/2012 11:46 1.0 Result HW19 5057788017	Flag	Water mg/L 01/26/2012 13:23 1.0 Result HW19-P 5057788018	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0  Result	Flag	5057788015 Water mg/L 01/26/2012 19:15 1.0 Result HW24-P 5057788020	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol	10	5057788011  Water mg/L 01/26/2012 15:30 1.0  Result  HW17 5057788016  Water	Flag	Water mg/L 01/25/2012 11:46 1.0 Result HW19 5057788017 Water	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0  Result  HW19-P 5057788018  Water	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0  Result  HW24 5057788019  Water	Flag	5057788015  Water mg/L 01/26/2012 19:15 1.0 Result  HW24-P 5057788020  Water	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Dilution Factor: Volatile Compound Ethylene glycol Sample Number: Laboratory ID:  Matrix: Units:	10	5057788011  Water mg/L 01/26/2012 15:30 1.0  Result  HW17 5057788016  Water mg/L	Flag	Water mg/L 01/25/2012 11:46 1.0 Result HW19 5057788017 Water mg/L	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0  Result  HW19-P 5057788018  Water mg/L	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0 Result  HW24 5057788019  Water mg/L	F <b>la</b> g	5057788015  Water mg/L 01/26/2012 19:15 1.0 Result HW24-P 5057788020  Water mg/L	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor: Volatile Compound Ethylene glycol  Sample Number: Laboratory ID:  Matrix:	10	Water mg/L 01/26/2012 15:30 1.0 Result HW17 5057788016 Water mg/L 01/27/2012	Flag	Water mg/L 01/25/2012 11:46 1.0 Result HW19 5057788017 Water	Flag	5057788013  Water mg/L 01/26/2012 13:23 1.0  Result  HW19-P 5057788018  Water	Flag	5057788014  Water mg/L 01/26/2012 17:13 1.0  Result  HW24 5057788019  Water	Flag	5057788015  Water mg/L 01/26/2012 19:15 1.0 Result  HW24-P 5057788020  Water	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Dilution Factor: Volatile Compound Ethylene glycol  Sample Number: Laboratory ID:  Matrix: Units:	10	Water mg/L 01/26/2012 15:30 1.0 Result  HW17 5057788016  Water mg/L 01/27/2012 11:40	Flag	Water mg/L 01/25/2012 11:46 1.0 Result Water mg/L 01/25/2012 17:47	Flag	Water mg/L 01/26/2012 13:23 1.0 Result Water MU19-P 5057788018 Water mg/L 01/23/2012 19:07	Flag	Water mg/L 01/26/2012 17:13 1.0 Result 14:04:45057788019 Water mg/L 01/27/2012 12:09	Flag	5057788015  Water mg/L 01/26/2012 19:15 1.0  Result  HW24-P 5057788020  Water mg/L 01/27/2012 13:18	Flag
Matrix: Units: Date Sampled: Dilution Factor: Volatile Compound Ethylene glycol  Sample Number: Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:	10.	Water mg/L 01/26/2012 15:30 1.0 Result  HW17 5057788016  Water mg/L 01/27/2012 11:40 1.0		Water mg/L 01/25/2012 11:46 1.0 Result  HW19 5057788017  Water mg/L 01/23/2012 17:47 1.0	THE PERSON NAMED IN COLUMN TO SERVICE AND	Water mg/L 01/26/2012 13:23 1.0 Result  HW19-P 5057788018  Water mg/L 01/23/2012 19:07 1.0		Water mg/L 01/26/2012 17:13 1.0 Result  HW24 5057788019  Water mg/L 01/27/2012 12:09 1.0	<b>新</b> 斯斯爾 <b>斯</b> 斯 <b>阿</b>	5057788015  Water mg/L 01/26/2012 19:15 1.0 Result  HW24-P 5057788020  Water mg/L 01/27/2012 13:18 1.0	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound Ethylene glycol  Sample Number: Laboratory ID:  Matrix: Units: Date Sampled: Time Sampled: Dilution Factor:  Volatile Compound	10	Water mg/L 01/26/2012 15:30 1.0 Result  HW17 5057788016  Water mg/L 01/27/2012 11:40 1.0 Result	Flag	Water mg/L 01/25/2012 11:46 1.0 Result  HW19 5057788017  Water mg/L 01/23/2012 17:47 1.0 Result	Flag	Water mg/L 01/26/2012 13:23 1.0 Result Water MU19-P 5057788018 Water mg/L 01/23/2012 19:07	Flag	Water mg/L 01/26/2012 17:13 1.0 Result 14:04:45057788019 Water mg/L 01/27/2012 12:09	Flag	5057788015  Water mg/L 01/26/2012 19:15 1.0  Result  HW24-P 5057788020  Water mg/L 01/27/2012 13:18	Flag
Laboratory ID:  Matrix: Units: Date Sampled: Dilution Factor:  Volatile Compound Ethylene glycol  Sample Number: Laboratory ID:  Matrix: Units: Date Sampled: Dilution Factor:  Volatile Compound	10.	Water mg/L 01/26/2012 15:30 1.0 Result  HW17 5057788016  Water mg/L 01/27/2012 11:40 1.0		Water mg/L 01/25/2012 11:46 1.0 Result  HW19 5057788017  Water mg/L 01/23/2012 17:47 1.0	THE PERSON NAMED IN COLUMN TO SERVICE AND	Water mg/L 01/26/2012 13:23 1.0 Result  HW19-P 5057788018  Water mg/L 01/23/2012 19:07 1.0		Water mg/L 01/26/2012 17:13 1.0 Result  HW24 5057788019  Water mg/L 01/27/2012 12:09 1.0	<b>新</b> 斯斯爾 <b>斯</b> 斯 <b>阿</b>	5057788015  Water mg/L 01/26/2012 19:15 1.0 Result  HW24-P 5057788020  Water mg/L 01/27/2012 13:18 1.0	

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL \* Dilution Factor)

Revised 09/99

DIM0205430

DIM0205286

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